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ONTARIO MINISTRY OF THE ENVIRONMENT
Toronto, Ontario

TORONTO AREA WATERSHED
MANAGEMENT STRATEGY STUDY

HUMBER RIVER AND
TORONTO AREA WATER QUALITY

APPENDIXES I AND J

September 1984

Acres Consulting Services Limited
Niagara Falls, Ontario

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1984

Humber river and Toronto area
water quality : appendixes I and
J.

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APPENDIX I
SUMMARY OF EXCEEDANCES

APPENDIX I

SUMMARY OF EXCEEDANCES

Appendix I is a summary of exceedances of water quality objectives. The contents of Appendix I are as follows.

| <u>Table</u> | <u>Description</u> |
|--------------|---|
| I-1 | Objectives and Guidelines Used to Determine Exceedances |
| I-2 | Wet Event No. 1 Exceedances |
| I-3 | Wet Event No. 2 Exceedances |
| I-4 | Wet Event No. 3 Exceedances |
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| I-7 | Spring Runoff Exceedances |

Note 1

Several statistics are reported in this appendix. These were determined as follows.

1 - A valid sample is one with one of the following remark codes

'P54'
'P60'
'A>'
'<=>'

- '< ' with measured value less than or equal to the Objective
- '<W ' with measured value less than or equal to the Objective
- '<T ' with measured value less than or equal to the Objective.

The number of valid samples for each parameter at each site was determined for each event.

- 2 - The number of exceedances is the number of valid samples whose concentrations are greater than or equal to (or perhaps less than or equal to in the case of pH) the Objective or guideline for that parameter.
- 3 - The percentage of samples exceeding an Objective or guideline is

$$\frac{\text{number of exceedances}}{\text{number of valid samples}} \times 100$$

- 4 - Where

V_i = the concentration of the sample that exceeds an Objective or guideline

n = the number of samples exceeding an Objective or guideline

O = the Objective or guideline.

An exceedance factor (Fe_i) was calculated as

$$Fe_i = \frac{V_i}{O}$$

Then the average exceedance factor (\overline{Fe}) for a parameter at a site during an event was calculated as

$$\overline{Fe} = \frac{1}{n} \sum_{i=1}^n Fe_i$$

An exceedance factor was calculated only when an exceedance occurred, so the minimum value an average exceedance factor could be is 1.0.

Note 2

Several parameters were combined for comparison with their Objectives

- 1 - α -chlordane and γ -chlordane for comparison with the Objective for chlordane
- 2 - Endosulfan I, Endosulfan II, and Endosulfan sulfoxide for comparison with the Objective for Endosulfan
- 3 - Heptachlor and heptachlorepoxide for comparison with their joint Objective.

Note 3

The symbols used in this appendix are as follows.

- 1 - A blank space means there was an Objective or guideline and either
 - no measurement was reported
 - a measurement was reported but no exceedance occurred.
- 2 - nObj means that there was no Objective or guideline and a measurement was reported.
- 3 - Remark codes that might follow reported concentrations are

| <u>Remark</u> | <u>Description</u> |
|---------------|--|
| !LA | No data: sample spoiled in laboratory accident |
| !SM | No data: sample missing (lost in lab?) |
| !TX | No data: time limit expired |
| !UI | No data: undetermined interference |
| !CR | No data: could not perform confirming reanalysis |
| !QU | No data: quality controls unacceptable |
| !CS | No data: contamination suspected |
| !RI | See attached report (no numeric result) ITCS |

| <u>Remark</u> | <u>Description</u> |
|---------------|---|
| < | Actual result is less than the reported value |
| <=> | Approximate result |
| <T | This low measurement is tentative, for information only |
| <W | "Zero", value reported is minimum measurable amount |
| A> | Approximate result: exceeded normal range limit |
| P54 | PCB resembled Aroclor 1254 |
| P60 | PCB resembled Aroclor 1260 |
| U72 | Unreliable: sample age exceeds 72 hours |
| AIN | Approximate result: interference suspected |
| UCS | Unreliable: contamination suspected |
| UIC | Unreliable: improper container |
| NOD | Missing results from MOE report |
| AIP | Analysis in progress |

APPENDIX I
TABLE 1
OBJECTIVES AND GUIDELINES
USED TO DETERMINE EXCEEDANCES

TABLE I-1

OBJECTIVES AND GUIDELINES
USED TO DETERMINE EXCEEDANCES

| Parameter Number | Parameter Name | Maximum | Minimum | Units | Source |
|---------------------|----------------------|---------|---------|------------|--------|
| 1 | Cadmium | 0.0002 | -10.0 | mg/L | * |
| 2 | Chromium | 0.100 | -10.0 | mg/L | * |
| 3 | Copper | 0.005 | -10.0 | mg/L | * |
| 4 | Mercury | 0.2 | -10.0 | g/L | * |
| 5 | Nickel | 0.025 | -10.0 | mg/L | * |
| 6 | Lead | 0.025 | -10.0 | mg/L | * |
| 7 | Zinc | 0.030 | -10.0 | mg/L | * |
| 8 | Fecal coliforms | 100 | -10.0 | no./100 mL | * |
| 10 | Aldrin | 1. | -10.0 | ng/L | * |
| 13 | γ BHC (Lindane) | 10. | -10.0 | ng/L | * |
| 14 | Chlordane | 60. | -10.0 | ng/L | * |
| 16 | Dieldrin | 1. | -10.0 | ng/L | * |
| 17 | Methoxychlor | 40. | -10.0 | ng/L | * |
| 18 | Endosulfan | 3. | -10.0 | ng/L | * |
| 20 | Endrin | 2. | -10.0 | ng/L | * |
| 22 | Heptachlorepoxyde | 1. | -10.0 | ng/L | * |
| 24 | Mirex | 1. | -10.0 | ng/L | * |
| 27 | PCB | 1. | -10.0 | ng/L | * |
| 29 | DDE | 3. | -10.0 | ng/L | ** |
| 30 | DDT | 3. | -10.0 | ng/L | * |
| 32 | 2,4-D | 4000. | -10.0 | ng/L | * |
| 35 | Dicamba | 200000. | -10.0 | ng/L | * |
| 37 | Sivlex | 2500. | -10.0 | ng/L | ** |
| 45 | BOD ₅ | 10. | -10.0 | mg/L | ** |
| 46 | Ammonia (un-ionized) | 0.02 | -10.0 | mg/L | * |
| 47 | pH | 8.5 | 6.5 | pH | * |
| 49 | Total phosphorus | 0.03 | -10.0 | mg/L | * |
| 51 | Residue particulate | 25. | -10.0 | mg/L | ** |

NOTES:

- 1 - -10.0 means there is no Objective or guideline.
- 2 - The MOE Objective for ammonia is for un-ionized ammonia. Ammonia results reported by the MOE Central Laboratory were expressed as total ammonia (ammonium, NH_4^+ , plus ammonia, NH_3). To determine exceedances, total ammonia values were converted to un-ionized ammonia by the following procedure.

$$\text{NH}_3 = (\text{NH}_4^+) * (\% \text{NH}_3)$$

$$\% \text{NH}_3 = 100 / (1 + [\text{H}^+]/\text{Ka})$$

where

H^+ = hydrogen ion concentration in moles/L

Ka = dissociation constant of NH_4^+ in moles/L.

A temperature of 20°C was assumed and $\text{Ka} = 4 \times 10^{-10}$ moles/L was used for this conversion.

* Ministry of the Environment, 1978. Water Management: Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment. Toronto.

**McNeely, R. N., V. P. Neimanis, and L. Dwyer, 1979. Winter Quality Sourcebook: A Guide to Water Quality Parameters. Environment Canada, Inland Waters Directorate, Water Quality Branch. Ottawa.

APPENDIX I
TABLE 2
WET EVENT NO. 1 EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 1 - OCTOBER 20, 1982
 Conventional Water Quality Parameters and Bacteria

STATION #1 Taylor Creek @ Don R

| | | Flow | Fecal Coliform | BOD5 | NH3 | pH | Phosphates Filt, react | Phosphorus Unf, total | Residue Filtr. | Residue Partic. |
|----------------------------|----------------|------|----------------|--------|--------|------|------------------------|-----------------------|----------------|-----------------|
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 82 10 20 07:00 | 0.13 | 7941 | | | | nObJ | | nObJ | |
| 2 | 82 10 20 13:50 | 0.15 | | | | | nObJ | 0.048 | nObJ | |
| 3 | 82 10 20 14:20 | 0.21 | | | | | nObJ | 0.220 | nObJ | 25.40 |
| 4 | 82 10 20 14:50 | 0.23 | | | | | nObJ | 0.275 | nObJ | 38.40 |
| 5 | 82 10 20 15:00 | 0.54 | | | | | nObJ | 0.255 | nObJ | 53.70 |
| 6 | 82 10 20 15:30 | 0.85 | | 13.40 | | | nObJ | 0.390 | nObJ | 140.00 |
| No. of valid samples: | | | 6 | 5 | 6 | 6 | 0 | 6 | 0 | 6 |
| No. of exceedances: | | | 1 | 1 | 0 | 0 | 0 | 5 | 0 | 4 |
| % of samples exceeding: | | | | 20.00 | 0.00 | 0.00 | | 83.33 | | 66.67 |
| Average exceedance factor: | | | 79.41 | 1.34 | | | | 7.92 | | 2.58 |

STATION #2 Don River @ mouth

| | | Fecal | | | Phosphates | | Phosphorus | Residue | Residue |
|----------------------------|----------------|----------|---------|--------|------------|-------------|------------|------------|---------|
| | FLOW | Coliform | BOD5 | NH3 | pH | Filt, react | Unf, total | Filt, res. | Partic. |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | mg/L P | mg/L P | mg/L | mg/L |
| Geom. Mean | | | | | | | | | |
| 1 | 82 10 20 07:22 | 1.82 | 11847 | 11.20 | 0.024 | nObJ | 0.195 | nObJ | |
| 2 | 82 10 20 13:05 | 4.25 | | | | nObJ | 0.190 | nObJ | |
| 3 | 82 10 20 14:00 | 5.56 | | | 0.050 | nObJ | 0.195 | nObJ | |
| 4 | 82 10 20 15:00 | 12.96 | | | | nObJ | 0.180 | nObJ | |
| 5 | 82 10 20 16:00 | 12.50 | | | | nObJ | 0.373 | nObJ | 33.00 |
| 6 | 82 10 20 16:30 | 11.17 | | | | 9.91 | 0.730 | nObJ | 43.50 |
| 7 | 82 10 20 17:00 | 10.96 | | | | nObJ | 0.695 | nObJ | 96.50 |
| 8 | 82 10 20 17:30 | 10.00 | | | | nObJ | 0.920 | nObJ | 63.70 |
| No. of valid samples: | | | 8 | 8 | 8 | 8 | 0 | 8 | 0 |
| No. of exceedances: | | | 1 | 1 | 2 | 1 | 0 | 8 | 0 |
| % of samples exceeding: | | | | 12.50 | 25.00 | 12.50 | | 100.00 | |
| Average exceedance factor: | | | 118.47 | 1.12 | 1.88 | 0.00 | | 14.49 | |

| STATION #3 Humber River @ Bloor St | | | | | | | | | |
|------------------------------------|----------------|--------------|-----------------------|----------------|---------------|-------|-------------|------------|---------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue |
| | | | Coliform | | | | Filt, react | Unf, total | Filt, Residue |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L |
| 1 | 82 10 20 12:30 | 4.10 | 905 | | | | nObj | | nObj |
| 2 | 82 10 20 14:00 | 4.75 | | | | | nObj | | nObj |
| 3 | 82 10 20 15:00 | 5.06 | | | | | nObj | | nObj |
| 4 | 82 10 20 15:30 | 4.10 | | | | 9.51 | nObj | | nObj |
| No. of valid samples: | | | 4 | 3 | 4 | 4 | 0 | 4 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 25.00 | | 0.00 | 0.00 |
| Average exceedance factor: | | | 9.05 | | | 0.00 | | | |

| STATION #4 Mimico Creek @ mouth | | | | | | | | | |
|---------------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|---------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue |
| | | | Coliform | | | | Filt, react | Unf, total | Filt, Residue |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L |
| 1 | 82 10 20 08:39 | 0.40 | 5672 | | | | nObj | | nObj |
| 2 | 82 10 20 13:58 | 0.50 | | 35.30 | | | nObj | 1.450 | nObj 104.00 |
| 3 | 82 10 20 14:22 | 1.36 | | 18.30 | | | nObj | 1.450 | nObj 90.20 |
| 4 | 82 10 20 14:54 | 1.35 | | 17.00 | | | nObj | 0.580 | nObj 61.20 |
| 5 | 82 10 20 15:33 | 1.86 | | | | | nObj | 0.188 | nObj 46.30 |
| 6 | 82 10 20 16:02 | 1.53 | | | | | nObj | 0.236 | nObj 60.40 |
| 7 | 82 10 20 16:29 | 1.29 | | | | | nObj | 0.250 | nObj 37.60 |
| 8 | 82 10 20 17:00 | 1.09 | | | | | nObj | 0.185 | nObj |
| No. of valid samples: | | | 8 | 7 | 8 | 8 | 0 | 8 | 0 |
| No. of exceedances: | | | 1 | 3 | 0 | 0 | 0 | 7 | 0 |
| % of samples exceeding: | | | | 42.86 | 0.00 | 0.00 | | 87.50 | 75.00 |
| Average exceedance factor: | | | 56.72 | 2.35 | | | | 20.66 | 2.66 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal Coliform #/100mL | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|------------------------------|----------------|---------------|------|-----------------------|----------------------|--------------------|-----------------|
| | | | Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 10 20 09:00 | 0.23 | 40114 | | | | n0bJ | 0.130 | n0bJ | |
| 2 | 82 10 20 13:00 | 0.35 | | | | | n0bJ | 0.135 | n0bJ | 104.00 |
| 3 | 82 10 20 14:00 | 0.52 | | 26.00 | | | n0bJ | 0.295 | n0bJ | 28.40 |
| 4 | 82 10 20 14:45 | 1.46 | | 33.80 | | | n0bJ | 2.400 | n0bJ | 129.00 |
| 5 | 82 10 20 15:00 | 1.74 | | 37.70 | 0.021 | | n0bJ | 2.600 | n0bJ | 269.00 |
| 6 | 82 10 20 15:30 | 3.36 | | 24.70 | | | n0bJ | 0.930 | n0bJ | 144.00 |
| 7 | 82 10 20 15:45 | 4.68 | | | | | n0bJ | 0.875 | n0bJ | 302.00 |
| 8 | 82 10 20 16:30 | 3.25 | | 11.50 | | | n0bJ | 0.905 | n0bJ | 285.00 |
| No. of valid samples: | | | 8 | 7 | 8 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 5 | 1 | 0 | 0 | 8 | 0 | 7 |
| % of samples exceeding: | | | | 71.43 | 12.50 | 0.00 | | 100.00 | | 87.50 |
| Average exceedance factor: | | | 401.14 | 2.67 | 1.09 | | | 34.46 | | 7.21 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal Coliform #/100mL | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|------------------------------|----------------|---------------|------|-----------------------|----------------------|--------------------|-----------------|
| | | | Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 10 20 08:26 | 2.91 | 1576 | | | | n0bJ | | n0bJ | |
| 2 | 82 10 20 14:15 | 3.39 | | | | | n0bJ | 0.031 | n0bJ | |
| 3 | 82 10 20 15:15 | 3.59 | | | | | n0bJ | 0.045 | n0bJ | |
| 4 | 82 10 20 16:10 | 4.57 | | | | | n0bJ | 0.034 | n0bJ | |
| 5 | 82 10 20 16:40 | 4.19 | | | | | n0bJ | 0.060 | n0bJ | |
| 6 | 82 10 20 17:50 | 4.74 | | | | | n0bJ | 0.043 | n0bJ | |
| 7 | 82 10 20 18:25 | 4.95 | | | | | n0bJ | 0.045 | n0bJ | |
| 8 | 82 10 20 19:30 | 4.67 | | | | | n0bJ | 0.030 | n0bJ | |
| No. of valid samples: | | | 8 | 6 | 8 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 87.50 | | 0.00 |
| Average exceedance factor: | | | 15.76 | | | | | 1.47 | | |

STATION #7 Humber River @ Lawrence Ave

| | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|------------|----------|--------|--------|------------|------------|-----------|------------|
| | | FLOW | Coliform | BOD5 | NH3 | pH | Filt,react | Unf,total | Filt,react |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L |
| | | Geom. Mean | | | | | | | |
| 1 | 82 10 20 08:00 | 3.11 | 1156 | | | | n0bj | | n0bj |
| 2 | 82 10 20 14:05 | 3.17 | | | | | n0bj | | n0bj |
| 3 | 82 10 20 15:05 | 3.44 | | | | | n0bj | | n0bj |
| 4 | 82 10 20 16:05 | 3.73 | | | | | n0bj | 0.038 | n0bj |
| 5 | 82 10 20 16:35 | 3.81 | | | | 8.57 | n0bj | 0.035 | n0bj |
| 6 | 82 10 20 17:15 | 4.50 | | | | 8.54 | n0bj | 0.030 | n0bj |
| 7 | 82 10 20 17:45 | 5.03 | | | | 8.52 | n0bj | 0.038 | n0bj |
| 8 | 82 10 20 18:55 | 4.88 | | | | | n0bj | 0.038 | n0bj |
| No. of valid samples: | | 8 | 7 | 7 | 9 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | 1 | 0 | 0 | 3 | 0 | 5 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 37.50 | | 62.50 | | 0.00 |
| Average exceedance factor: | | 11.56 | | | 0.00 | | 1.19 | | |

STATION #8 W Humber R @ Main Humber R

| | | Fecal | | | | Phosphates | | Phosphorus | | Residue | | Residue | |
|----------------------------|----------------|--------------|-----------------------------------|----------------|---------------|------------|-----------------------|----------------------|---------------------|--------------------|-----------------|---------------------|--------------------|
| # | Date and Time | FLOW m3/s | Coliform #/100mL Geom. Mean | BOD5 mg/L O | NH3 mg/L N | pH | Filt, react mg/L P | Unf, total mg/L P | Filt, react mg/L | Unf, total mg/L | Partic. mg/L | Filt, react mg/L | Unf, total mg/L |
| 1 | 82 10 20 08:17 | 0.40 | 2520 | | | 8.53 | nObj | | | | | nObj | |
| 2 | 82 10 20 14:10 | 0.56 | | | | | nObj | | | | | nObj | |
| 3 | 82 10 20 14:40 | 0.64 | | | | 8.53 | nObj | 0.085 | | | | nObj | |
| 4 | 82 10 20 15:40 | 1.04 | | | | | nObj | 0.047 | | | | nObj | |
| 5 | 82 10 20 16:10 | 1.05 | | | | | nObj | 0.063 | | | | nObj | |
| 6 | 82 10 20 16:40 | 0.90 | | 11.40 | | | nObj | 0.075 | | | | nObj | |
| 7 | 82 10 20 17:10 | 0.77 | | | | | nObj | 0.055 | | | | nObj | |
| 8 | 82 10 20 17:40 | 0.68 | | | | | nObj | 0.047 | | | | nObj | |
| No. of valid samples: | | | 8 | 7 | 8 | 8 | 0 | 8 | 0 | 8 | | 8 | |
| No. of exceedances: | | | 1 | 1 | 0 | 2 | 0 | 6 | 0 | 6 | | 0 | |
| % of samples exceeding: | | | | 14.29 | 0.00 | 25.00 | | 75.00 | | 75.00 | | 0.00 | |
| Average exceedance factor: | | | 25.20 | 1.14 | | 0.00 | | 2.07 | | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------|----------------|---------------|-------|-------------|------------|------------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, res. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 20 08:17 | 1.92 | 1380 | | | | nObj | 0.031 | nObj | 34.00 |
| 2 | 82 10 20 13:55 | 1.89 | | | | | nObj | | nObj | |
| 3 | 82 10 20 14:55 | 2.63 | | | | 8.54 | nObj | 0.034 | nObj | |
| 4 | 82 10 20 15:25 | 3.36 | | | | | nObj | 1.430 | nObj | |
| 5 | 82 10 20 16:25 | 2.89 | | | | | nObj | 0.455 | nObj | 142.00 |
| 6 | 82 10 20 16:55 | 2.50 | | | | | nObj | 0.227 | nObj | 79.80 |
| 7 | 82 10 20 17:25 | 2.26 | | | | | nObj | 0.115 | nObj | 41.50 |
| 8 | 82 10 20 17:55 | 2.18 | | | | 8.55 | nObj | 0.079 | nObj | 27.70 |
| No. of valid samples: | | | 8 | 5 | 7 | 8 | 0 | 8 | 0 | 7 |
| No. of exceedances: | | | 1 | 0 | 0 | 2 | 0 | 7 | 0 | 5 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 25.00 | | 87.50 | | 71.43 |
| Average exceedance factor: | | | 13.80 | | | 0.00 | | 11.29 | | 2.60 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------|----------------|---------------|------|-------------|------------|------------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, res. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 20 07:20 | 2.49 | 148 | | | | nObj | | nObj | |
| 2 | 82 10 20 10:50 | | | | | | nObj | 0.035 | nObj | |
| 3 | 82 10 20 13:45 | 2.49 | | | | | nObj | | nObj | |
| 4 | 82 10 20 14:40 | 2.55 | | | | | nObj | | nObj | |
| 5 | 82 10 20 15:50 | 2.67 | | | | | nObj | 0.030 | nObj | |
| 6 | 82 10 20 16:25 | 2.67 | | | | | nObj | 0.038 | nObj | |
| 7 | 82 10 20 17:35 | 2.61 | | | | | nObj | 0.031 | nObj | |
| 8 | 82 10 20 18:00 | 2.61 | | | | | nObj | 0.031 | nObj | |
| No. of valid samples: | | | 8 | 2 | 8 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 62.50 | | 0.00 |
| Average exceedance factor: | | | 1.48 | | | | | 1.10 | | |

STATION #11 Black Creek @ Lawrence Ave

| | | Fecal | | | | Phosphates | | Phosphorus | Residue | Residue |
|----------------------------|----------------|-------|------------|--------|--------|------------|------------|------------|---------------|---------|
| | | FLOW | Coliform | BOD5 | NH3 | pH | Filt,react | Unf,total | Filt, Residue | Partic. |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 82 10 20 08:35 | 0.11 | 2685 | | | | n0bj | 0.042 | n0bj | |
| 2 | 82 10 20 13:40 | 0.17 | | | 0.022 | | n0bj | 0.112 | n0bj | 51.00 |
| 3 | 82 10 20 14:30 | 0.88 | | 18.20 | | | n0bj | 0.202 | n0bj | 27.00 |
| 4 | 82 10 20 14:45 | 1.96 | | 13.30 | 0.023 | | n0bj | 1.150 | n0bj | 572.00 |
| 5 | 82 10 20 15:00 | 1.84 | | 13.10 | | | n0bj | 1.500 | n0bj | 517.00 |
| 6 | 82 10 20 15:15 | 1.76 | | 19.80 | | | n0bj | 0.875 | n0bj | 447.00 |
| 7 | 82 10 20 16:15 | 1.33 | | | | | n0bj | 0.475 | n0bj | 176.00 |
| 8 | 82 10 20 17:15 | 0.62 | | | | | n0bj | 0.243 | n0bj | 67.30 |
| No. of valid samples: | | | 8 | 8 | 9 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 4 | 2 | 0 | 0 | 8 | 0 | 7 |
| % of samples exceeding: | | | | 50.00 | 25.00 | 0.00 | | 100.00 | | 87.50 |
| Average exceedance factor: | | | 26.85 | 1.61 | 1.15 | | | 19.16 | | 10.61 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 1 - OCTOBER 20, 1982
 Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|---|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 07:00 | 0.13 | 0.0007 | | 0.017 | | | | 0.032 |
| 5 | 82 10 20 15:00 | 0.54 | 0.0010 | | 0.022 | | | 0.039 | 0.090 |
| 7 | 82 10 20 16:00 | 1.16 | 0.0004 | | 0.025 | | | 0.030 | 0.077 |

| | | | | | | | |
|----------------------------|--------|------|--------|------|------|-------|--------|
| No. of valid samples: | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | 3 | 0 | 3 | 0 | 0 | 2 | 3 |
| % of samples exceeding: | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 66.67 | 100.00 |
| Average exceedance factor: | 3.50 | | 4.27 | | | 1.38 | 2.21 |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|---|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 07:22 | 1.82 | 0.0008 | | 0.010 | | 0.067 | | 0.066 |
| 4 | 82 10 20 15:00 | 12.96 | 0.0008 | | 0.130 | | 0.038 | 0.029 | 0.097 |
| 7 | 82 10 20 17:00 | 10.96 | 0.0004 | | 0.024 | | | 0.032 | 0.640 |

| | | | | | | | |
|----------------------------|--------|------|--------|------|-------|-------|--------|
| No. of valid samples: | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | 3 | 0 | 3 | 0 | 2 | 2 | 3 |
| % of samples exceeding: | 100.00 | 0.00 | 100.00 | 0.00 | 66.67 | 66.67 | 100.00 |
| Average exceedance factor: | 3.33 | | 10.93 | | 2.10 | 1.22 | 9.92 |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|---|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 12:30 | 4.10 | 0.0007 | | 0.006 | | | | |
| 3 | 82 10 20 15:00 | 5.06 | 0.0006 | | 0.015 | | | | |

| | | | | | | | |
|----------------------------|--------|------|--------|------|------|------|------|
| No. of valid samples: | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| No. of exceedances: | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | 3.25 | | 2.10 | | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:39 | 0.40 | | | 0.019 | | 0.056 | | 0.094 |
| 5 | 82 10 20 15:33 | 1.86 | 0.0004 | | 0.022 | | | 0.031 | 0.050 |
| 8 | 82 10 20 17:00 | 1.09 | 0.0010 | | 0.022 | | | 0.042 | 0.082 |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 2 | 0 | 3 | 0 | 1 | 2 | 3 |
| % of samples exceeding: | | | 66.67 | 0.00 | 100.00 | 0.00 | 33.33 | 66.67 | 100.00 |
| Average exceedance factor: | | | 3.50 | | 4.20 | | 2.24 | 1.46 | 2.40 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 09:00 | 0.23 | 0.0005 | | 0.015 | | | | 0.034 |
| 3 | 82 10 20 14:00 | 0.52 | 0.0007 | | 0.017 | | | 0.033 | 0.056 |
| 5 | 82 10 20 15:00 | 1.74 | 0.0018 | | 0.072 | | | 0.200 | 0.320 |
| 8 | 82 10 20 16:30 | 3.25 | 0.0016 | | 0.051 | | | 0.180 | 0.250 |
| No. of valid samples: | | | 4 | 4 | 4 | 2 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 3 | 4 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 75.00 | 100.00 |
| Average exceedance factor: | | | 5.75 | | 7.75 | | | 5.51 | 5.50 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:26 | 2.91 | 0.0006 | | 0.008 | | | | 0.038 |
| 3 | 82 10 20 15:15 | 3.59 | 0.0002 | | 0.007 | | | | |
| 4 | 82 10 20 16:10 | 4.57 | | | 0.009 | | | | |
| 7 | 82 10 20 18:25 | 4.95 | 0.0002 | | 0.010 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 3 | 0 | 4 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 75.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 25.00 |
| Average exceedance factor: | | | 1.67 | | 1.70 | | | | 1.27 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:00 | 3.11 | | | 0.007 | | | | |
| 3 | 82 10 20 15:05 | 3.44 | | | 0.009 | | | | |
| 7 | 82 10 20 17:45 | 5.03 | | | 0.010 | | | | |
| 8 | 82 10 20 18:55 | 4.88 | | | 0.008 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.70 | | | | |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:17 | 0.40 | 0.0002 | | 0.010 | | | | |
| 3 | 82 10 20 14:40 | 0.64 | | | 0.010 | | | | |
| 6 | 82 10 20 16:40 | 0.90 | 0.0002 | | 0.013 | | | | 0.039 |
| 8 | 82 10 20 17:40 | 0.68 | 0.0002 | | 0.008 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 3 | 0 | 4 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 75.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 25.00 |
| Average exceedance factor: | | | 1.00 | | 2.05 | | | | 1.30 |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:17 | 1.92 | | | 0.005 | | | | |
| 3 | 82 10 20 14:55 | 2.63 | | | 0.006 | | | | |
| 6 | 82 10 20 16:55 | 2.50 | 0.0003 | | 0.014 | | | 0.026 | 0.044 |
| 8 | 82 10 20 17:55 | 2.18 | 0.0002 | | 0.009 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 2 | 0 | 4 | 0 | 0 | 1 | 1 |
| % of samples exceeding: | | | 50.00 | 0.00 | 100.00 | 0.00 | 0.00 | 25.00 | 25.00 |
| Average exceedance factor: | | | 1.25 | | 1.70 | | | 1.04 | 1.47 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 07:20 | 2.49 | | | 0.006 | | | | |
| 2 | 82 10 20 10:50 | | 0.0006 | | 0.006 | | | | |
| 6 | 82 10 20 16:25 | 2.67 | | | 0.008 | | | | |
| 8 | 82 10 20 18:00 | 2.61 | | | 0.007 | | | | 0.046 |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 1 | 0 | 4 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 25.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 25.00 |
| Average exceedance factor: | | | 3.00 | | 1.35 | | | | 1.53 |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 20 08:35 | 0.11 | 0.0003 | | 0.012 | | | | 0.052 |
| 3 | 82 10 20 14:30 | 0.88 | 0.0006 | | 0.026 | | | 0.070 | 0.110 |
| 6 | 82 10 20 15:15 | 1.76 | 0.0017 | | 0.070 | | | 0.310 | 0.430 |
| 8 | 82 10 20 17:15 | 0.62 | 0.0005 | | 0.021 | | | 0.060 | 0.150 |
| No. of valid samples: | | | 4 | 4 | 4 | 3 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 3 | 4 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 75.00 | 100.00 |
| Average exceedance factor: | | | 3.88 | | 6.45 | | | 5.87 | 6.18 |

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STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | 10 FLOW m3/s | 11 P1ALDR ns/L | 12 P1BHCA ns/L | 13 P1BHCB ns/L | 14 P1BHCG ns/L | 15 P1CHLA ns/L | 16 P1CHLG ns/L | 17 P1DIEL ns/L | 18 P1DMDT ns/L | 19 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|---|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 3 | 82 10 20 15:05 | 3.44 | | nObj | nObj | | | | | | | | | |
| 7 | 82 10 20 17:45 | 5.03 | | nObj | nObj | | | | | | | | | |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Average exceedance factor: 0 0 0 0 0 0 0 0 0 0 0 0 0 0

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | 10 FLOW m3/s | 11 P1ALDR ns/L | 12 P1BHCA ns/L | 13 P1BHCB ns/L | 14 P1BHCG ns/L | 15 P1CHLA ns/L | 16 P1CHLG ns/L | 17 P1DIEL ns/L | 18 P1DMDT ns/L | 19 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|---|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 3 | 82 10 20 14:40 | 0.64 | | nObj | nObj | | | | | | | | | |
| 6 | 82 10 20 16:40 | 0.90 | | nObj | nObj | | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor: 0.00

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | 10 FLOW m3/s | 11 P1ALDR ns/L | 12 P1BHCA ns/L | 13 P1BHCB ns/L | 14 P1BHCG ns/L | 15 P1CHLA ns/L | 16 P1CHLG ns/L | 17 P1DIEL ns/L | 18 P1DMDT ns/L | 19 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|---|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 3 | 82 10 20 14:55 | 2.63 | | nObj | nObj | | | | | | | | | |
| 6 | 82 10 20 16:55 | 2.50 | | nObj | nObj | | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor: 0.00

STATION #10 Humber River @ Steeles Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMBT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 2 | 82 10 20 10:50 | | n0bJ | n0bJ | | | | | | | | | |
| 6 | 82 10 20 16:25 | 2.67 | n0bJ | n0bJ | | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #11 Black Creek @ Lawrence Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMBT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 10 20 14:30 | 0.88 | n0bJ | n0bJ | | | | | | | | | |
| 6 | 82 10 20 15:15 | 1.76 | n0bJ | n0bJ | | | | | | | | | |

No. of valid samples: 0 0 0 2 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

| # | Date and Time | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|
| | | FLOW m3/s | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L |
| 5 | 82 10 20 15:33 | 1.86 | | | nObj | nObj | 100P60 | nObj | | | nObj | | nObj |
| 8 | 82 10 20 17:00 | 1.09 | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | 100.00 | | | | | | |
| Average exceedance factor: | | | | | | | 100.00 | | | | | | |

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STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L | P324DB ns/L |
| 3 | 82 10 20 15:05 | 3.44 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 7 | 82 10 20 17:45 | 5.03 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m ³ /s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L | P324DB ns/L |
| 3 | 82 10 20 14:40 | 0.64 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 82 10 20 16:40 | 0.90 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m ³ /s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L | P324DB ns/L |
| 3 | 82 10 20 14:55 | 2.63 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 82 10 20 16:55 | 2.50 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

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TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 1 - OCTOBER 20, 1982
 Pesticides and Organic Parameters

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| STATION #9: Main Number K e Number K | | | | | | | | | | | | | |
|--------------------------------------|----------------|------|--------|--------|--------|--------|-------|-------|--------|--------|-------|-------|--------|
| | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | |
| | | FLOW | P324DP | P3DICA | P3PICL | P3SILV | X2HCB | X3234 | X32345 | X32356 | X3245 | X3246 | X3PCPH |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 10 20 14:55 | 2.63 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 82 10 20 16:55 | 2.50 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| No. of valid samples: | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | |

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APPENDIX I
TABLE 3
WET EVENT NO. 2 EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 2 - NOVEMBER 3 to NOVEMBER 5, 1992
 Conventional Water Quality Parameters and Bacteria

STATION #1 Taylor Creek @ Don R.

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|--------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 11 03 16:00 | 0.32 | | | | | nObJ | 0.093 | nObJ | |
| 2 | 82 11 03 17:00 | 0.33 | | | | | nObJ | 0.093 | nObJ | |
| 3 | 82 11 03 18:00 | 0.40 | | | | | nObJ | 0.110 | nObJ | |
| 4 | 82 11 03 19:00 | 0.52 | | | | | nObJ | 0.115 | nObJ | |
| 5 | 82 11 03 21:00 | 0.74 | | | | | nObJ | 0.147 | nObJ | 33.20 |
| 6 | 82 11 03 23:00 | 1.43 | | | | | nObJ | 0.230 | nObJ | 81.10 |
| 7 | 82 11 04 01:00 | 2.04 | | | | | nObJ | 0.400 | nObJ | 150.00 |
| 8 | 82 11 04 03:20 | 2.04 | | | | | nObJ | 0.290 | nObJ | 170.00 |
| 9 | 82 11 04 14:05 | 1.27 | | | | | nObJ | 0.160 | nObJ | 66.90 |

| | | | | | | | | |
|----------------------------|---|------|------|------|---|--------|---|-------|
| No. of valid samples: | 0 | 9 | 5 | 9 | 0 | 9 | 0 | 9 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 5 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 55.56 |
| Average exceedance factor: | | | | | | 5.99 | | 4.01 |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|--------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 11 03 19:30 | 9.22 | | | | | nObJ | 0.400 | nObJ | 211.00 |
| 2 | 82 11 03 23:10 | 20.67 | | | | | nObJ | 0.362 | nObJ | 143.00 |
| 3 | 82 11 04 02:00 | 25.20 | | | | | nObJ | 0.375 | nObJ | 142.00 |
| 4 | 82 11 04 04:30 | 25.41 | | | | | nObJ | 0.330 | nObJ | 177.00 |
| 5 | 82 11 04 07:00 | 22.30 | | | | | nObJ | 0.352 | nObJ | 205.00 |
| 6 | 82 11 04 09:00 | 21.70 | | | | | nObJ | 0.400 | nObJ | 237.00 |
| 7 | 82 11 04 14:48 | 20.25 | | | | | nObJ | 0.380 | nObJ | 212.00 |
| 8 | 82 11 04 22:16 | 17.21 | | | | | nObJ | 0.352 | nObJ | 213.00 |

| | | | | | | | | |
|----------------------------|---|------|------|------|---|--------|---|--------|
| No. of valid samples: | 0 | 8 | 1 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | | | | 12.30 | | 7.70 |

STATION #3 Rubber River @ Blount St
Fecal

| # | Date and Time | FLOW m ³ /s | Fecal Coliform #/100mL Geom. Mean | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates Filt./react mg/L P | Phosphorus Unf./total mg/L P | Residue Filt./ mg/L | Residue Partic. mg/L |
|---|---------------|---------------------------|--|----------------|---------------|----|-------------------------------------|------------------------------------|---------------------------|----------------------------|
|---|---------------|---------------------------|--|----------------|---------------|----|-------------------------------------|------------------------------------|---------------------------|----------------------------|

| | | | | | | | | | | |
|---|----------------|-------|------|--|--|--|------|-------|------|--------|
| 1 | 82 11 03 19:00 | 15.34 | 1000 | | | | nObJ | 0.425 | nObJ | 286.00 |
| 2 | 82 11 03 23:45 | 19.63 | | | | | nObJ | 0.297 | nObJ | 319.00 |
| 3 | 82 11 04 01:00 | 23.35 | | | | | nObJ | 0.312 | nObJ | 220.00 |
| 4 | 82 11 04 04:30 | 27.09 | | | | | nObJ | 0.267 | nObJ | 195.00 |
| 5 | 82 11 04 16:30 | 34.80 | | | | | nObJ | 0.392 | nObJ | 372.00 |
| 6 | 82 11 05 07:00 | 37.39 | | | | | nObJ | 0.420 | nObJ | 299.00 |
| 7 | 82 11 05 15:00 | 30.54 | | | | | nObJ | 0.342 | nObJ | 212.00 |
| 8 | 82 11 05 20:45 | 39.77 | | | | | nObJ | 0.255 | nObJ | 163.00 |

| | | | | | | | | |
|----------------------------|-------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 2 | 8 | 5 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 10.00 | | | | | 11.29 | | 9.77 |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal Coliform #/100mL Geom. Mean | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates Filt./react mg/L P | Phosphorus Unf./total mg/L P | Residue Filt./ mg/L | Residue Partic. mg/L |
|---|---------------|---------------------------|--|----------------|---------------|----|-------------------------------------|------------------------------------|---------------------------|----------------------------|
|---|---------------|---------------------------|--|----------------|---------------|----|-------------------------------------|------------------------------------|---------------------------|----------------------------|

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|--|------|-------|------|--------|
| 1 | 82 11 03 15:10 | 2.91 | 265 | | | | nObJ | 0.250 | nObJ | 96.60 |
| 2 | 82 11 03 17:50 | 2.83 | | | | | nObJ | 0.265 | nObJ | 67.20 |
| 3 | 82 11 03 20:00 | 2.45 | | | | | nObJ | 0.190 | nObJ | 55.20 |
| 4 | 82 11 03 22:00 | 3.39 | | | | | nObJ | 0.192 | nObJ | 47.80 |
| 5 | 82 11 03 23:55 | 4.41 | | | | | nObJ | 0.175 | nObJ | 62.50 |
| 6 | 82 11 04 01:30 | 5.46 | | | | | nObJ | 0.475 | nObJ | 261.00 |
| 7 | 82 11 04 16:00 | 9.71 | | | | | nObJ | 0.432 | nObJ | 255.00 |
| 8 | 82 11 05 02:30 | 6.09 | | | | | nObJ | 0.237 | nObJ | 120.00 |

| | | | | | | | | |
|----------------------------|------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 2 | 8 | 3 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 2.65 | | | | | 8.90 | | 4.83 |

STATION #5 Black Creek & Scarlett Rd

| | | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|------|------------|--------|--------|------|-------------|------------|-------------|---------|
| | | FLOW | Coliform | BOD5 | NH3 | pH | Filt, react | Unf, total | Filt, react | Partic. |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 82 11 03 16:00 | 1.41 | | | | | nObJ | 0.250 | nObJ | 93.50 |
| 2 | 82 11 04 00:10 | 5.89 | | | | | nObJ | 0.183 | nObJ | 55.60 |
| 3 | 82 11 04 00:50 | 6.17 | | | | | nObJ | 0.215 | nObJ | 82.30 |
| 4 | 82 11 04 04:00 | 6.32 | | | | | nObJ | 0.135 | nObJ | 57.80 |
| 5 | 82 11 04 08:00 | 6.97 | | | | | nObJ | 0.180 | nObJ | 84.00 |
| 6 | 82 11 04 15:00 | 5.75 | | | | | nObJ | 0.212 | nObJ | 96.90 |
| 7 | 82 11 04 16:30 | 6.46 | | | | | nObJ | 0.175 | nObJ | 77.90 |
| 8 | 82 11 04 18:00 | 4.94 | | | | | nObJ | 0.160 | nObJ | 67.50 |
| No. of valid samples: | | | 0 | 8 | 2 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | | | | | | 6.29 | | 3.08 |

STATION #6 Mumber River & Scarlett Rd

| STATION 45 NUMBER RIVER COLUMBIA RD | | | | | | | | | | |
|-------------------------------------|----------------|--------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|---------------------|-----------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, react mg/L | Partic. mg/L |
| 1 | 82 11 03 19:15 | 19.44 | 529 | | | | nObJ | 0.372 | nObJ | 227.00 |
| 2 | 82 11 03 23:00 | 21.14 | | | | | nObJ | 0.400 | nObJ | 208.00 |
| 3 | 82 11 03 23:30 | 21.72 | | | | | nObJ | 0.285 | nObJ | 230.00 |
| 4 | 82 11 04 01:30 | 24.32 | | | | | nObJ | 0.257 | nObJ | 165.00 |
| 5 | 82 11 04 03:00 | 24.53 | | | | | nObJ | 0.262 | nObJ | 215.00 |
| 6 | 82 11 04 04:30 | 25.25 | | | | | nObJ | 0.360 | nObJ | 274.00 |
| 7 | 82 11 05 01:15 | 43.75 | | | | | nObJ | 0.423 | nObJ | 357.00 |
| 8 | 82 11 05 20:30 | 28.02 | | | | | nObJ | 0.232 | nObJ | 166.00 |
| | | | | | | | | | | |
| No. of valid samples: | | | 2 | 8 | 0 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | | | 0.00 | | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 5.29 | | | | | 10.80 | | 9.21 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | Fecal | | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|------------|----------|----------------|---------------|----|-------------|---------------|-------------|---------|
| | | | Coliform | mg/100mL | | | | Filt, react | Unfilt, total | Filt, react | Partic. |
| | | | Geom. Mean | | | | | mg/L P | mg/L P | mg/L | mg/L |

| | | | | | | | | | | | |
|---|----------------|-------|--|-----|--|--|--|------|-------|------|--------|
| 1 | 82 11 03 22:30 | 22.50 | | 447 | | | | nObJ | 0.252 | nObJ | 203.00 |
| 2 | 82 11 04 02:00 | 23.41 | | | | | | nObJ | 0.262 | nObJ | 190.00 |
| 3 | 82 11 04 07:50 | 32.40 | | | | | | nObJ | 0.260 | nObJ | 190.00 |
| 4 | 82 11 04 13:45 | 35.82 | | | | | | nObJ | 0.390 | nObJ | 287.00 |
| 5 | 82 11 04 20:00 | 45.81 | | | | | | nObJ | 0.525 | nObJ | 399.00 |
| 6 | 82 11 04 22:00 | 45.81 | | | | | | nObJ | 0.425 | nObJ | 421.00 |
| 7 | 82 11 05 06:45 | 42.01 | | | | | | nObJ | 0.375 | nObJ | 248.00 |
| 8 | 82 11 05 20:00 | 30.04 | | | | | | nObJ | 0.315 | nObJ | |

| | | | | | | | | |
|----------------------------|------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 2 | 8 | 3 | 8 | 0 | 8 | 0 | 7 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 7 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 4.47 | | | | | 11.68 | | 11.19 |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m ³ /s | Fecal | | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|------------|----------|----------------|---------------|----|-------------|---------------|-------------|---------|
| | | | Coliform | mg/100mL | | | | Filt, react | Unfilt, total | Filt, react | Partic. |
| | | | Geom. Mean | | | | | mg/L P | mg/L P | mg/L | mg/L |

| | | | | | | | | | | | |
|---|----------------|-------|--|-----|--|--|--|------|-------|------|--------|
| 1 | 82 11 03 17:15 | 1.91 | | 632 | | | | nObJ | 0.172 | nObJ | 108.00 |
| 2 | 82 11 03 19:15 | 2.36 | | | | | | nObJ | 0.167 | nObJ | 100.00 |
| 3 | 82 11 04 01:45 | 3.99 | | | | | | nObJ | 0.215 | nObJ | 118.00 |
| 4 | 82 11 04 04:45 | 4.39 | | | | | | nObJ | 0.183 | nObJ | 110.00 |
| 5 | 82 11 04 06:45 | 5.13 | | | | | | nObJ | 0.225 | nObJ | 127.00 |
| 6 | 82 11 04 15:00 | 5.70 | | | | | | nObJ | 0.240 | nObJ | 110.00 |
| 7 | 82 11 05 10:30 | 11.43 | | | | | | nObJ | 0.270 | nObJ | 125.00 |
| 8 | 82 11 05 19:00 | 7.95 | | | | | | nObJ | 0.272 | nObJ | 108.00 |

| | | | | | | | | |
|----------------------------|------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 2 | 8 | 6 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 6.32 | | | | | 7.27 | | 4.53 |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m ³ /s | Fecal | | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|---------------------------|----------|------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform | Geon. Mean | | | | Filt./resct mg/L P | Unf./total mg/L P | Filtres. mg/L | Partic. mg/L |
| | | | | | | | | | | | |
| 1 | 82 11 03 17:00 | 12.19 | 173 | | | | | nObJ | 0.310 | nObJ | 168.00 |
| 2 | 82 11 03 23:30 | 13.20 | | | | | | nObJ | 0.365 | nObJ | 158.00 |
| 3 | 82 11 04 00:00 | 13.77 | | | | | | nObJ | 0.397 | nObJ | 216.00 |
| 4 | 82 11 04 05:00 | 15.93 | | | | | | nObJ | 0.290 | nObJ | 190.00 |
| 5 | 82 11 04 08:00 | 18.47 | | | | 8.55 | | nObJ | 0.310 | nObJ | 278.00 |
| 6 | 82 11 04 13:00 | 26.93 | | | | | | nObJ | 0.385 | nObJ | 394.00 |
| 7 | 82 11 05 02:00 | 29.47 | | | | | | nObJ | 0.385 | nObJ | 287.00 |
| 8 | 82 11 05 18:45 | 17.54 | | | | | | nObJ | 0.217 | nObJ | 173.00 |

| | | | | | | | | |
|----------------------------|------|------|------|-------|---|--------|---|--------|
| No. of valid samples: | 2 | 8 | 7 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 1 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 12.50 | | 100.00 | | 100.00 |
| Average exceedance factor: | 1.73 | | | 0.00 | | 11.12 | | 9.27 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m ³ /s | Fecal | | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|---------------------------|----------|------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform | Geon. Mean | | | | Filt./resct mg/L P | Unf./total mg/L P | Filtres. mg/L | Partic. mg/L |
| | | | | | | | | | | | |
| 1 | 82 11 03 16:00 | 12.94 | 500 | | | | | nObJ | 0.290 | nObJ | 243.00 |
| 2 | 82 11 04 01:00 | 11.60 | | | | | | nObJ | 0.222 | nObJ | 227.00 |
| 3 | 82 11 04 04:10 | 12.11 | | | | | | nObJ | 0.227 | nObJ | 186.00 |
| 4 | 82 11 04 06:20 | 13.58 | | | | | | nObJ | 0.257 | nObJ | 189.00 |
| 5 | 82 11 04 13:30 | 19.04 | | | | | | nObJ | 0.367 | nObJ | 226.00 |
| 6 | 82 11 04 17:50 | 21.25 | | | | | | nObJ | 0.415 | nObJ | 285.00 |
| 7 | 82 11 04 22:10 | 21.38 | | | | | | nObJ | 0.345 | nObJ | 272.00 |
| 8 | 82 11 05 18:00 | 14.12 | | | | | | nObJ | 0.215 | nObJ | 160.00 |

| | | | | | | | | |
|----------------------------|------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 1 | 8 | 3 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 5.00 | | | | | 9.74 | | 8.94 |

STATION #11 Black Creek @ Lawrence Ave

Fecal

| # | Date and Time | Flow m ³ /s | Coliform #/100mL Geom. Mean | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates Filt, react mg/L P | Phosphorus Unf, total mg/L P | Residue Filtre. mg/L | Residue Partic. mg/L |
|---|---------------|---------------------------|-----------------------------------|----------------|---------------|----|-------------------------------------|------------------------------------|----------------------------|----------------------------|
|---|---------------|---------------------------|-----------------------------------|----------------|---------------|----|-------------------------------------|------------------------------------|----------------------------|----------------------------|

| | | | | | | | | | | |
|---|----------------|------|--|--|--|--|------|-------|------|--------|
| 1 | 02 11 03 15:30 | 0.96 | | | | | nObJ | 0.167 | nObJ | 55.60 |
| 2 | 02 11 03 22:00 | 1.20 | | | | | nObJ | 0.295 | nObJ | 56.10 |
| 3 | 02 11 03 23:33 | 2.44 | | | | | nObJ | 0.217 | nObJ | 97.10 |
| 4 | 02 11 04 00:30 | | | | | | nObJ | 0.202 | nObJ | 63.80 |
| 6 | 02 11 04 04:25 | 2.93 | | | | | nObJ | 0.150 | nObJ | 80.10 |
| 7 | 02 11 04 11:15 | 4.44 | | | | | nObJ | 0.247 | nObJ | 116.00 |
| 8 | 02 11 04 14:30 | 3.59 | | | | | nObJ | 0.227 | nObJ | 99.70 |
| 9 | 02 11 04 17:45 | 3.14 | | | | | nObJ | 0.215 | nObJ | 75.30 |

| | | | | | | | | |
|----------------------------|---|------|------|------|---|--------|---|--------|
| No. of valid samples: | 0 | 8 | 7 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | | | | 7.17 | | 3.32 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WQT EVENT 2 - NOVEMBER 3 to NOVEMBER 5, 1982
 Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R.

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 16:00 | 0.32 | 0.0002 | | 0.019 | | | | 0.040 |
| 3 | 82 11 03 18:00 | 0.40 | 0.0004 | | 0.018 | | | 0.037 | 0.048 |
| 5 | 82 11 03 21:00 | 0.74 | 0.0004 | | 0.023 | | | 0.076 | 0.068 |
| 7 | 82 11 04 01:00 | 2.04 | 0.0007 | | 0.037 | | | 0.097 | 0.120 |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 3 | 4 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 75.00 | 100.00 |
| Average exceedance factor: | | | 2.13 | | 4.85 | | | 2.67 | 2.30 |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 19:30 | 9.22 | 0.0006 | | 0.018 | | | 0.031 | 0.065 |
| 3 | 82 11 04 02:00 | 25.20 | 0.0007 | | 0.023 | | | 0.031 | 0.085 |
| 6 | 82 11 04 08:00 | 21.70 | 0.0006 | | 0.024 | | | 0.058 | 0.077 |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 3 | 3 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 3.17 | | 4.33 | | | 1.60 | 2.52 |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 19:00 | 15.34 | 0.0005 | | 0.017 | | | | 0.048 |
| 7 | 82 11 04 01:00 | 23.35 | 0.0005 | | 0.022 | | | 0.033 | 0.054 |
| 8 | 82 11 05 07:00 | 37.39 | 0.0005 | | 0.016 | | | | 0.042 |
| 9 | 82 11 05 20:45 | 35.77 | 0.0004 | | 0.130 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 1 | 3 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 25.00 | 75.00 |
| Average exceedance factor: | | | 2.38 | | 9.25 | | | 1.32 | 1.60 |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 15:10 | 2.91 | 0.0005 | | 0.017 | | | | 0.055 |
| 4 | 82 11 03 22:20 | 3.39 | 0.0004 | | 0.017 | | | 0.028 | 0.060 |
| 8 | 82 11 05 02:30 | 6.09 | 0.0005 | | 0.015 | | | | 0.058 |
| No. of valid samples: | | | 3 | 3 | 3 | 4 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 1 | 3 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 33.33 | 100.00 |
| Average exceedance factor: | | | 2.33 | | 3.27 | | | 1.12 | 1.92 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 3 | 82 11 04 00:50 | 6.17 | 0.0006 | | 0.021 | | | 0.075 | 0.092 |
| 5 | 82 11 04 09:00 | 6.97 | 0.0004 | | 0.013 | | | 0.033 | 0.050 |
| 8 | 82 11 04 18:00 | 4.94 | 0.0006 | | 0.016 | | | 0.046 | 0.058 |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 3 | 3 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 2.67 | | 3.33 | | | 2.05 | 2.11 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 18:15 | 19.44 | 0.0003 | | 0.013 | | | | 0.034 |
| 3 | 82 11 03 23:30 | 21.72 | 0.0004 | | 0.014 | | | | 0.038 |
| 5 | 82 11 04 03:00 | 24.53 | 0.0004 | | 0.014 | | | | 0.048 |
| 6 | 82 11 05 20:30 | 28.02 | 0.0002 | | 0.013 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 0 | 3 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 75.00 |
| Average exceedance factor: | | | 1.63 | | 2.70 | | | | 1.33 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 3 | 82 11 04 07:50 | 32.40 | | | 0.019 | | | | 0.070 |
| 7 | 82 11 05 06:45 | 42.01 | 0.0004 | | 0.018 | | | | 0.038 |
| 8 | 82 11 05 20:00 | 30.04 | 0.0003 | | 0.011 | | | | 0.030 |
| No. of valid samples: | | | 3 | 3 | 3 | 4 | 3 | 3 | 3 |
| No. of exceedances: | | | 2 | 0 | 3 | 0 | 0 | 0 | 3 |
| % of samples exceeding: | | | 66.67 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 1.75 | | 3.20 | | | | 1.53 |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 17:15 | 1.91 | 0.0002 | | 0.012 | | | | |
| 4 | 82 11 04 04:45 | 4.39 | 0.0003 | | 0.013 | | | | 0.035 |
| 7 | 82 11 05 10:30 | 11.43 | 0.0003 | | 0.014 | | | | 0.037 |
| 8 | 82 11 05 19:00 | 7.95 | 0.0002 | | 0.016 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 0 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 50.00 |
| Average exceedance factor: | | | 1.25 | | 2.75 | | | | 1.20 |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 17:00 | 12.19 | 0.0003 | | 0.014 | | | | 0.035 |
| 4 | 82 11 04 05:00 | 15.93 | 0.0002 | | 0.014 | | | | |
| 7 | 82 11 05 02:00 | 29.47 | 0.0003 | | 0.014 | | | | 0.034 |
| 8 | 82 11 05 18:45 | 17.54 | 0.0002 | | 0.012 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 0 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 50.00 |
| Average exceedance factor: | | | 1.25 | | 2.70 | | | | 1.15 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 16:00 | 12.94 | 0.0002 | | 0.013 | | | | 0.030 |
| 3 | 82 11 04 04:10 | 12.11 | | | 0.012 | | | | 0.031 |
| 6 | 82 11 04 17:50 | 21.25 | 0.0004 | | 0.018 | | | | 0.032 |
| 8 | 82 11 05 18:00 | 14.12 | 0.0002 | | 0.013 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 3 | 0 | 4 | 0 | 0 | 0 | 3 |
| % of samples exceeding: | | | 75.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 75.00 |
| Average exceedance factor: | | | 1.33 | | 2.80 | | | | 1.03 |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 03 15:30 | 0.96 | 0.0002 | | 0.017 | | | | 0.044 |
| 5 | 82 11 04 03:00 | 2.63 | 0.0004 | | 0.016 | | | 0.052 | 0.073 |
| 7 | 82 11 04 11:15 | 4.44 | 0.0004 | | 0.017 | | | 0.049 | 0.075 |
| 9 | 82 11 04 17:45 | 3.14 | 0.0003 | | 0.016 | | | 0.035 | 0.050 |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 3 | 4 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 75.00 | 100.00 |
| Average exceedance factor: | | | 1.63 | | 3.30 | | | 1.81 | 2.02 |

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCC | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 4 | 02 11 03 22:20 | 3.33 | | nObJ | nObJ | | | | | | | | |
| 6 | 02 11 04 01:30 | 5.46 | | nObJ | nObJ | | | | | | | | |

STATION: 45 Black Creek @ Scarlett Rd

[illegible]

STATION #6 Humber River @ Scarlett Rd

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 03 23:30 | 21.72 | | nObJ | nObJ | | | | | | | | |
| 5 | 82 11 04 03:00 | 24.53 | | nObJ | nObJ | | | | | | | | |

| | | | | | | | | | | | | |
|----------------------------|------|---|---|---|---|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 0.00 | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | |

STATION #7 Humber River @ Lawrence Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
|---|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 04 07:50 | 32.40 | | nObJ | nObJ | | | | | | | | | |
| 5 | 82 11 04 20:00 | 45.81 | | nObJ | nObJ | | | | | | | | | |

No. of valid samples: 0 0 0 2 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #8 W Humber R @ Main Humber R

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
|---|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 4 | 82 11 04 04:45 | 4.39 | | nObJ | nObJ | | | | | | | | | |
| 7 | 82 11 05 10:30 | 11.43 | | nObJ | nObJ | | | | | | | | | |

No. of valid samples: 0 0 0 2 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #9 Main Humber R @ W Humber R

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
|---|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 4 | 82 11 04 05:00 | 15.93 | | nObJ | nObJ | 10 | | | | | | | | |
| 7 | 82 11 05 02:00 | 29.47 | | nObJ | nObJ | | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 1 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 100.00
 Average exceedance factor: 1.00

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 04 04:10 | 12.11 | | nQbJ | nQbJ | | | | | | | | |
| 6 | 82 11 04 17:50 | 21.25 | | nQbJ | nQbJ | | | | | | | | |

STATION 411 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | | P1ALDR ng/L | P1BHCA ng/L | P1BHCB ng/L | P1BHCG ng/L | P1CHLA ng/L | P1CHLG ng/L | P1DIEL ng/L | P1DMDT ng/L | P1END1 ng/L | P1END2 ng/L | P1ENDR ng/L | P1ENDS ng/L |
| 4 | 82 11 04 00:30 | | | nObJ | nObJ | | | | | | | | | |
| 7 | 82 11 04 11:15 | 4.44 | | nObJ | nObJ | 15 | | | | | | | | |

| | | | | | | | | | | | | |
|----------------------------|---|---|---|-------|------|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 50.00 | 0.00 | | | | | | | |
| Average exceedance factor: | | | | 1.50 | | | | | | | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA - EXCEEDANCE VALUES
WET EVENT 2 - NOVEMBER 3 to NOVEMBER 5, 1982
Pesticides and Organic Parameters

| STATION #1 Taylor Creek @ Don R | | | | | | | | | | | | | | |
|---------------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| # | Date and Time | FLOW m3/s | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L | P324DB ns/L |
| 3 | 82 11 03 18:00 | 0.40 | | | n0bj | n0bj | | n0bj | | | | n0bj | | n0bj |
| 7 | 82 11 04 01:00 | 2.04 | | | n0bj | n0bj | 390P54 | n0bj | | | | n0bj | | n0bj |
| No. of valid samples: | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| % of samples exceeding: | | | | | | | 100.00 | | | | | | 0.00 | |
| Average exceedance factor: | | | | | | | 390.00 | | | | | | | |

| STATION #2 Don River @ mouth | | | | | | | | | | | | | |
|------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPBD | P1PPDE | P1PPDT | P3245T | P324D | P324DB |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 04 02:00 | 25.20 | | | nObJ | nObJ | 90P54 | nObJ | | | nObJ | | nObJ |
| 6 | 82 11 04 08:00 | 21.70 | | | nObJ | nObJ | 110P54 | nObJ | | | nObJ | | nObJ |
| No. of valid samples: | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | 100.00 | | | | | 0.00 | |
| Average exceedance factor: | | | | | | | 100.00 | | | | | | |

[illegible]

| STATION #4 RIMMIE CREEK @ MOUNTAIN VIEW | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|---|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | FLOW | PIRHEP | PIRHEP | PIRIRK | PIRCHL | PIRCPD | PIRCPD | PIRPPD | PIRPPD | PIRPPD | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 4 | 82 11 03 20:20 | 3.37 | | | | nObJ | nObJ | | | | | nObJ | | nObJ |
| 6 | 82 11 04 01:30 | 5.46 | | | | nObJ | nObJ | | | | | nObJ | | nObJ |

STATION #5 Black Creek & Scarlett Rd

| # | Date and Time | m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | | FLOW | P1HEPE | P1HEPT | P1HIRX | P1GCHL | P1GPDY | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P3245T | P3245T |
| | | | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 04 00:50 | 6.17 | | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |
| 5 | 82 11 04 08:00 | 6.97 | | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ng/L | PIHEPT ng/L | PIHIX ng/L | PIOCHL ng/L | PIOPDT ng/L | PIPCBT ng/L | PIPPDD ng/L | PIPPDE ng/L | PIPPDT ng/L | P324ST ng/L | P324D ng/L | P324DB ng/L |
| 3 | 82 11 03 23:30 | 21.72 | | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |
| 5 | 82 11 04 03:00 | 24.53 | | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

[illegible]

STATION #7 Humber River @ Lawrence Ave

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 3 | 82 11 04 07:50 | 32.40 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |
| 5 | 82 11 04 20:00 | 45.61 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

2

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

0.00

Average exceedance factor:

STATION #8 W Humber R @ Main Humber R

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 4 | 82 11 04 04:45 | 4.39 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |
| 7 | 82 11 05 10:30 | 11.43 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

2

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

0.00

Average exceedance factor:

STATION #9 Main Humber R @ W Humber R

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 4 | 82 11 04 05:00 | 15.93 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |
| 7 | 82 11 05 02:00 | 29.47 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

1

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

0.00

Average exceedance factor:

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 2 - NOVEMBER 3 to NOVEMBER 5, 1962
 Pesticides and Organic Parameters

| STATION #1 Taylor Creek @ Don R | | | | | | | | | | | | |
|---------------------------------|----------------|--------|--------|--------|--------|-------|-------|--------|--------|-------|-------|-------|
| | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| | FLOW | P3240F | P3210A | P3210L | P331LV | X2H0B | X3234 | X3234S | X3235S | X324S | X324S | X324F |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 03 18:00 | 0.40 | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
| 7 | 82 11 04 01:00 | 2.04 | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
| No. of valid samples: | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | |

[illegible]

| STATION #3 Humber River @ Bloor St | | | | | | | | | | | | |
|------------------------------------|----------------|--------|--------|--------|--------|-------|-------|--------|--------|-------|-------|--------|
| | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| | FLOW | P324DP | P324CA | P324CL | P324LV | X2HCB | X3234 | X3234S | X3235S | X324S | X324S | X324PH |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 04 01:00 | 23.35 | n0bJ | | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
| 6 | 82 11 05 07:00 | 37.37 | n0bJ | | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
| No. of valid samples: | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | |

STATION 45: N. 1000' Creek, 200 yds.

[illegible]

STATION #3 Black Creek & Scariett Rd

| # | Date and Time | Flow m ³ /s | P3240R ns/L | P3240H ns/L | P3240L ns/L | P331LV ns/L | X2HCB ns/L | X3234 ns/L | X3234S ns/L | X3235G ns/L | X324S ns/L | X3246 ns/L | X3P0PH ns/L |
|----------------------------|----------------|---------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| 3 | 82 11 04 00:50 | 6.17 | nObJ | | nObJ | | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ |
| 5 | 82 11 04 08:00 | 6.97 | nObJ | | nObJ | | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ |
| No. of valid samples: | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | |

STATION 44 Number River 3 Scarlett Rd

[illegible]

[illegible][illegible]

APPENDIX I
TABLE 4
WET EVENT NO. 3 EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 3 - NOVEMBER 21 to NOVEMBER 22, 1982
 Conventional Water Quality Parameters and Bacteria

| STATION #1 Taylor Creek @ Don R | | | | | | | | | |
|---------------------------------|----------------|--------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|---------------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue |
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, total mg/L |
| 1 | 82 11 21 13:05 | 1.35 | 13970 | | | | nobj | 0.425 | nobj |
| 2 | 82 11 21 13:55 | 1.50 | | | | | nobj | 0.257 | nobj |
| 3 | 82 11 21 16:30 | 0.97 | | | | | nobj | 0.177 | nobj |
| 4 | 82 11 21 18:40 | 0.60 | | | | | nobj | 0.117 | nobj |
| 5 | 82 11 21 20:28 | 0.53 | | | | | nobj | 0.100 | nobj |
| 6 | 82 11 21 22:33 | 0.46 | | | | | nobj | 0.087 | nobj |
| No. of valid samples: | | | 6 | 6 | 3 | 6 | 0 | 6 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 6 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | 66.67 |
| Average exceedance factor: | | | 139.70 | | | | | 6.46 | 2.52 |

| STATION #2 Don River @ mouth | | | | | | | | | |
|------------------------------|----------------|--------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|---------------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue |
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, total mg/L |
| 1 | 82 11 21 12:04 | 13.41 | 28019 | | | | nobj | 0.655 | nobj |
| 2 | 82 11 21 14:11 | 10.81 | | | | | nobj | 0.555 | nobj |
| 3 | 82 11 21 16:50 | 9.50 | | | | | nobj | 0.405 | nobj |
| 4 | 82 11 21 19:10 | 8.35 | | | | | nobj | 0.335 | nobj |
| 5 | 82 11 21 23:43 | 5.95 | | | | | nobj | 0.300 | nobj |
| No. of valid samples: | | | 5 | 5 | 2 | 5 | 0 | 5 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 5 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | 100.00 |
| Average exceedance factor: | | | 280.19 | | | | | 15.00 | 8.14 |

STATION #3 Humber River @ Bloor St

| | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|------------|---------|--------|--------|------------|------------|------------|---------|
| | FLOW | Coliform | BOD5 | NH3 | pH | Filt,react | Unf,total | Filt,react | Partic. |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | mg/L P | mg/L P | mg/L | mg/L |
| | | Geom. Mean | | | | | | | |
| 1 | 82 11 21 18:45 | 9.11 | 1157 | | | nObj | 0.132 | nObj | 60.30 |
| 2 | 82 11 22 02:30 | 11.10 | | | | nObj | 0.148 | nObj | 51.60 |
| 3 | 82 11 22 04:15 | 13.16 | | | 8.50 | nObj | 0.165 | nObj | 28.90 |
| 4 | 82 11 22 06:00 | 13.83 | | | | nObj | 0.207 | nObj | 56.90 |
| 5 | 82 11 22 11:30 | 13.96 | | | | nObj | 0.217 | nObj | 127.00 |
| 6 | 82 11 22 14:00 | 13.43 | | | | nObj | 0.160 | nObj | |
| 7 | 82 11 22 16:00 | 12.52 | | | | nObj | 0.172 | nObj | 65.30 |
| 8 | 82 11 22 19:30 | 11.70 | | | | nObj | 0.107 | nObj | 59.90 |

| | | | | | | | | |
|----------------------------|-------|------|------|-------|---|--------|---|-------|
| No. of valid samples: | 8 | 8 | 5 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 1 | 0 | 8 | 0 | 7 |
| % of samples exceeding: | | 0.00 | 0.00 | 12.50 | | 100.00 | | 87.50 |
| Average exceedance factor: | 11.57 | | | 0.00 | | 5.45 | | 2.57 |

STATION #4 Mimico Creek @ mouth

| | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|------------|----------|--------|--------|------------|-------------|------------|-------------|
| | | FLOW | Coliform | BOD5 | NH3 | pH | Filt, react | Unf, total | Filt, react |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L |
| | | Geom. Mean | | | | | | | Partic. |
| | | | | | | | | | mg/L |
| 1 | 82 11 21 11:30 | 3.86 | 3762 | | | | nObj | 0.320 | nObj |
| 2 | 82 11 21 13:05 | 5.15 | | | | | nObj | 0.385 | nObj |
| 3 | 82 11 21 14:00 | 5.77 | | | | | nObj | 0.240 | nObj |
| 4 | 82 11 21 15:00 | 4.19 | | | | | nObj | 0.265 | nObj |
| 5 | 82 11 21 18:15 | 3.39 | | | | | nObj | 0.227 | nObj |

| | | | | | | | | |
|----------------------------|-------|------|------|------|---|--------|---|--------|
| No. of valid samples: | 5 | 5 | 5 | 5 | 0 | 5 | 0 | 5 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 37.62 | | | | | 9.58 | | 4.55 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|-------------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, react | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 11 21 11:45 | 2.51 | 15336 | | | | nObj | 0.200 | nObj | 76.80 |
| 2 | 82 11 21 12:45 | 3.14 | | | | | nObj | 0.417 | nObj | 96.40 |
| 3 | 82 11 21 13:45 | 3.76 | | | | | nObj | 0.357 | nObj | 70.30 |
| 4 | 82 11 21 14:45 | 3.46 | | | | | nObj | 0.187 | nObj | 75.40 |
| 5 | 82 11 21 15:45 | 2.42 | | | | | nObj | 0.162 | nObj | 47.90 |
| 6 | 82 11 21 17:45 | 2.36 | | | | | nObj | 0.127 | nObj | 36.90 |
| No. of valid samples: | | | 6 | 6 | 4 | 6 | 0 | 6 | 0 | 6 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 6 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 153.36 | | | | | 8.06 | | 2.69 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|-------------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, react | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 11 21 16:15 | 9.27 | 807 | | | | nObj | 0.112 | nObj | 56.00 |
| 2 | 82 11 22 02:20 | 16.23 | | | | | nObj | 0.172 | nObj | 144.00 |
| 3 | 82 11 22 03:45 | 15.89 | | | | | nObj | 0.172 | nObj | 133.00 |
| 4 | 82 11 22 05:30 | 16.31 | | | | | nObj | 0.225 | nObj | 141.00 |
| 5 | 82 11 22 07:30 | 16.31 | | | | | nObj | 0.180 | nObj | 140.00 |
| 6 | 82 11 22 11:00 | 16.31 | | | | | nObj | 0.137 | nObj | 116.00 |
| 7 | 82 11 22 13:30 | 16.31 | | | | | nObj | 0.143 | nObj | 125.00 |
| 8 | 82 11 22 20:15 | 13.83 | | | | | nObj | 0.145 | nObj | 134.00 |
| No. of valid samples: | | | 8 | 8 | 6 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 8.07 | | | | | 5.36 | | 4.95 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|------------|------------|---------|---------|
| | | | Coliform | | | | Filt,react | Unf,total | Filtra. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 11 21 15:30 | 8.41 | 838 | | | | n0bj | 0.112 | n0bj | 36.70 |
| 2 | 82 11 22 01:30 | 13.66 | | | | | n0bj | 0.163 | n0bj | 92.20 |
| 3 | 82 11 22 05:15 | 17.26 | | | | | n0bj | 0.187 | n0bj | 149.00 |
| 4 | 82 11 22 07:00 | 17.71 | | | | | n0bj | 0.187 | n0bj | 106.00 |
| 5 | 82 11 22 09:00 | 17.71 | | | | | n0bj | 0.145 | n0bj | 120.00 |
| 6 | 82 11 22 10:30 | 16.89 | | | | | n0bj | 0.150 | n0bj | 124.00 |
| 7 | 82 11 22 15:15 | 15.45 | | | | | n0bj | 0.127 | n0bj | 109.00 |
| 8 | 82 11 22 20:15 | 14.14 | | | | | n0bj | 0.127 | n0bj | 63.40 |
| No. of valid samples: | | | 8 | 8 | 7 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 8.38 | | | | | 4.99 | | 4.00 |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|------------|------------|---------|---------|
| | | | Coliform | | | | Filt,react | Unf,total | Filtra. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 11 21 20:48 | 1.44 | 824 | | | | n0bj | 0.085 | n0bj | 36.20 |
| 2 | 82 11 22 03:30 | 4.97 | | | | | n0bj | 0.130 | n0bj | 94.50 |
| 3 | 82 11 22 05:45 | 5.17 | | | | | n0bj | 0.105 | n0bj | 88.50 |
| 4 | 82 11 22 08:15 | 4.97 | | | | | n0bj | 0.107 | n0bj | 79.60 |
| 5 | 82 11 22 10:30 | 4.67 | | | | | n0bj | 0.117 | n0bj | 94.20 |
| 6 | 82 11 22 12:30 | 4.48 | | | | | n0bj | 0.110 | n0bj | 69.30 |
| 7 | 82 11 22 15:22 | 4.03 | | | | | n0bj | 0.110 | n0bj | 69.00 |
| 8 | 82 11 22 19:30 | 3.38 | | | | | n0bj | 0.107 | n0bj | 93.90 |
| No. of valid samples: | | | 8 | 8 | 5 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 8.24 | | | | | 3.63 | | 3.08 |

STATION #9 Main Humber R @ W Humber R

| | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue | |
|---|----------------|-------|------------|--------|--------|------------|-------------|------------|-------------|---------|
| | | FLOW | Coliform | BOD5 | NH3 | pH | Filt, react | Unf, total | Filt, react | Partic. |
| # | Date and Time | m3/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 82 11 21 12:06 | 4.13 | 712 | | | | n0bJ | 0.075 | n0bJ | 56.50 |
| 2 | 82 11 21 12:30 | 4.61 | | | | | n0bJ | 0.117 | n0bJ | 59.80 |
| 3 | 82 11 21 20:53 | 6.02 | | | | | n0bJ | 0.177 | n0bJ | 154.00 |
| 4 | 82 11 22 05:45 | 8.15 | | | | | n0bJ | 0.123 | n0bJ | 113.00 |
| 5 | 82 11 22 10:30 | 7.94 | | | | 8.52 | n0bJ | 0.150 | n0bJ | 134.00 |
| 6 | 82 11 22 12:30 | 7.72 | | | | | n0bJ | 0.143 | n0bJ | 114.00 |
| 7 | 82 11 22 15:38 | 7.12 | | | | 8.50 | n0bJ | 0.117 | n0bJ | 105.00 |
| 8 | 82 11 22 19:30 | 6.46 | | | | 8.51 | n0bJ | 0.100 | n0bJ | 87.60 |

| | | | | | | | | |
|----------------------------|------|------|------|-------|---|--------|---|--------|
| No. of valid samples: | 8 | 8 | 5 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 0 | 3 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 0.00 | 37.50 | | 100.00 | | 100.00 |
| Average exceedance factor: | 7.12 | | | 0.00 | | 4.18 | | 4.12 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Fecal | | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|----------------|--------------|------------|--------|---------------|----|-------------|------------|-------------|---------|
| | | | Coliform | BOD5 | | | Filt, react | Unf, total | Filt, react | Partic. |
| | | | #/100mL | mg/L O | | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 82 11 21 11:10 | 3.73 | 729 | | | | n0bj | 0.137 | n0bj | 95.50 |
| 2 | 82 11 21 13:16 | 4.31 | | | | | n0bj | 0.073 | n0bj | 54.60 |
| 3 | 82 11 21 20:13 | 7.01 | | | | | n0bj | 0.132 | n0bj | 109.00 |
| 4 | 82 11 22 02:00 | 8.26 | | | | | n0bj | 0.127 | n0bj | 122.00 |
| 5 | 82 11 22 04:30 | 8.18 | | | 0.112 | | n0bj | 0.232 | n0bj | 187.00 |
| 6 | 82 11 22 11:30 | 7.82 | | | | | n0bj | 0.143 | n0bj | 110.00 |
| 7 | 82 11 22 14:15 | 7.47 | | | | | n0bj | 0.102 | n0bj | 48.40 |
| 8 | 82 11 22 20:15 | 6.79 | | | | | n0bj | 0.093 | n0bj | 75.90 |

| | | | | | | | | |
|----------------------------|------|------|-------|------|---|--------|---|--------|
| No. of valid samples: | 8 | 8 | 6 | 8 | 0 | 8 | 0 | 8 |
| No. of exceedances: | 1 | 0 | 1 | 0 | 0 | 8 | 0 | 8 |
| % of samples exceeding: | | 0.00 | 16.67 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | 7.29 | | 5.60 | | | 4.33 | | 4.01 |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | PH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|-----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, re. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 11 21 11:50 | 1.39 | 4562 | | | | nObJ | 0.202 | nObJ | 84.20 |
| 2 | 82 11 21 13:00 | 1.76 | | | | | nObJ | 0.153 | nObJ | 67.30 |
| 3 | 82 11 21 14:00 | 2.00 | | | | | nObJ | 0.143 | nObJ | 67.50 |
| 4 | 82 11 21 15:00 | 1.39 | | | | | nObJ | 0.195 | nObJ | 49.60 |
| 5 | 82 11 21 16:00 | 1.17 | | | | | nObJ | 0.140 | nObJ | 51.90 |
| No. of valid samples: | | | 5 | 5 | 2 | 5 | 0 | 5 | 0 | 5 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 100.00 |
| Average exceedance factor: | | | 45.62 | | | | | 5.49 | | 2.56 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 3 - NOVEMBER 21 to NOVEMBER 22, 1982
 Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 21 13:05 | 1.35 | 0.0002 | | 0.035 | | | 0.060 | 0.130 |
| 3 | 82 11 21 16:30 | 0.97 | 0.0006 | | 0.202 | | | 0.043 | 0.080 |
| No. of valid samples: | | | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| No. of exceedances: | | | 2 | 0 | 2 | 0 | 0 | 2 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 2.00 | | 23.70 | | | 2.06 | 3.50 |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 21 12:04 | 13.41 | 0.0010 | | 0.034 | | | 0.100 | 0.140 |
| 3 | 82 11 21 16:50 | 9.50 | 0.0004 | | 0.027 | | | 0.055 | 0.120 |
| No. of valid samples: | | | 2 | 2 | 2 | 0 | 2 | 2 | 2 |
| No. of exceedances: | | | 2 | 0 | 2 | 0 | 0 | 2 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 3.50 | | 6.10 | | | 3.10 | 4.33 |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 22 02:30 | 11.10 | 0.0002 | | 0.015 | | | | 0.033 |
| 4 | 82 11 22 06:00 | 13.83 | 0.0002 | | 0.019 | | | | 0.040 |
| 7 | 82 11 22 16:00 | 12.52 | 0.0002 | | 0.019 | | | | |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 0 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 66.67 |
| Average exceedance factor: | | | 1.00 | | 3.53 | | | | 1.22 |

STATION #4 Mimico Creek @ south

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 21 11:30 | 3.86 | | | 0.030 | | | | 0.140 |
| 4 | 82 11 21 15:00 | 4.19 | 0.0006 | | 0.019 | | | 0.035 | 0.110 |
| No. of valid samples: | | | 1 | 2 | 2 | 2 | 2 | 1 | 2 |
| No. of exceedances: | | | 1 | 0 | 2 | 0 | 0 | 1 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 3.00 | | 4.90 | | | 1.40 | 4.17 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 3 | 82 11 21 13:45 | 3.76 | 0.0009 | | 0.026 | | | 0.065 | 0.094 |
| 5 | 82 11 21 15:45 | 2.42 | 0.0007 | | 0.026 | | | 0.070 | 0.089 |
| No. of valid samples: | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| No. of exceedances: | | | 2 | 0 | 2 | 0 | 0 | 2 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 4.00 | | 5.20 | | | 2.70 | 3.05 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 22 02:20 | 16.23 | 0.0003 | | 0.020 | | | | 0.037 |
| 4 | 82 11 22 05:30 | 16.31 | 0.0003 | | 0.020 | | | | 0.034 |
| 6 | 82 11 22 11:00 | 16.31 | 0.0002 | | 0.018 | | | | |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 0 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 66.67 |
| Average exceedance factor: | | | 1.33 | | 3.87 | | | | 1.18 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 22 01:30 | 13.66 | 0.0002 | | 0.018 | | | | 0.030 |
| 3 | 82 11 22 05:15 | 17.26 | 0.0002 | | 0.017 | | | | 0.030 |
| 6 | 82 11 22 10:30 | 16.89 | 0.0004 | | 0.020 | | 0.036 | | |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 1 | 0 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 33.33 | 0.00 | 66.67 |
| Average exceedance factor: | | | 1.33 | | 3.67 | | 1.44 | | 1.00 |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 22 03:30 | 4.97 | 0.0003 | | 0.016 | | | | |
| 6 | 82 11 22 12:30 | 4.48 | 0.0002 | | 0.015 | | | | |
| 7 | 82 11 22 15:22 | 4.03 | 0.0002 | | 0.015 | | | | |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 1.17 | | 3.07 | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 21 12:30 | 4.61 | 0.0002 | | 0.016 | | | | 0.041 |
| 6 | 82 11 22 12:30 | 7.72 | 0.0004 | | 0.013 | | | | |
| 7 | 82 11 22 15:38 | 7.12 | 0.0002 | | 0.130 | | | | |
| No. of valid samples: | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| No. of exceedances: | | | 3 | 0 | 3 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 33.33 |
| Average exceedance factor: | | | 1.33 | | 10.60 | | | | 1.37 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 2 | 82 11 21 13:16 | 4.31 | 0.0006 | | 0.017 | | | | |
| 4 | 82 11 22 02:00 | 8.26 | 0.0002 | | 0.013 | | | | |
| 7 | 82 11 22 14:15 | 7.47 | 0.0002 | | 0.011 | | | | |
| 8 | 82 11 22 20:15 | 6.79 | 0.0003 | | 0.013 | | | | |
| No. of valid samples: | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| No. of exceedances: | | | 4 | 0 | 4 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 1.63 | | 2.70 | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 11 21 11:50 | 1.39 | 0.0005 | | 0.018 | | | 0.039 | 0.079 |
| 4 | 82 11 21 15:00 | 1.39 | 0.0005 | | 0.018 | | | 0.120 | 0.091 |
| No. of valid samples: | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| No. of exceedances: | | | 2 | 0 | 2 | 0 | 0 | 2 | 2 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | 2.50 | | 3.60 | | | 3.18 | 2.83 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 3 - NOVEMBER 21 to NOVEMBER 22, 1982
 Pesticides and Organic Parameters

| STATION #1 Taylor Creek @ Don R | | | | | | | | | | | | | |
|---------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 5 | 82 11 21 20:28 | 0.53 | | nObj | nObj | 16 | | | | | | | |
| No. of valid samples: | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | 100.00 | 0.00 | | | | | | | |
| Average exceedance factor: | | | | | 1.60 | | | | | | | | |

[illegible][illegible]

STATION #4 Mimico Creek @ mouth

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|----------------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 11 21 11:30 | 3.86 | | n0bj | n0bj | | | | | | | | |
| 4 | 82 11 21 15:00 | 4.19 | | n0bj | n0bj | 18 | | | 2 | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 50.00 | 0.00 | | 100.00 | | | | |
| Average exceedance factor: | | | | | | 1.80 | | | 2.00 | | | | |

STATION #5 Black Creek @ Scarlett Rd

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
|----------------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 3 | 82 11 21 13:45 | 3.76 | | n0bj | n0bj | | | | 6 | | | | | |
| 5 | 82 11 21 15:45 | 2.42 | | n0bj | n0bj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | 0.00 | | 100.00 | | | | | |
| Average exceedance factor: | | | | | | | | | 6.00 | | | | | |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | 10 P1ALDR ng/L | 11 P1BHCA ng/L | 12 P1BHCN ng/L | 13 P1BHCG ng/L | 14 P1CHLA ng/L | 15 P1CHLG ng/L | 16 P1DIEL ng/L | 17 P1DMDT ng/L | 18 P1END1 ng/L | 19 P1END2 ng/L | 20 P1ENDR ng/L | 21 P1ENDS ng/L |
|----------------------------|----------------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 2 | 82 11 22 02:20 | 16.23 | | n0bj | n0bj | | | | | | | | | |
| 6 | 82 11 22 11:00 | 16.31 | | n0bj | n0bj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | | |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 10 P1ALDR ns/L | 11 P1BHCA ns/L | 12 P1BHCN ns/L | 13 P1BHCG ns/L | 14 P1CHLA ns/L | 15 P1CHLG ns/L | 16 P1DIEL ns/L | 17 P1DMDT ns/L | 18 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|----------------------------|----------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 2 | 82 11 22 01:30 | 13.66 | | nObj | nObj | | | | | | | | | |
| 6 | 82 11 22 10:30 | 16.89 | | nObj | nObj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | | |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | 10 P1ALDR ns/L | 11 P1BHCA ns/L | 12 P1BHCN ns/L | 13 P1BHCG ns/L | 14 P1CHLA ns/L | 15 P1CHLG ns/L | 16 P1DIEL ns/L | 17 P1DMDT ns/L | 18 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|----------------------------|----------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 2 | 82 11 22 03:30 | 4.97 | | nObj | nObj | | | | | | | | | |
| 6 | 82 11 22 12:30 | 4.48 | | nObj | nObj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | 10 P1ALDR ns/L | 11 P1BHCA ns/L | 12 P1BHCN ns/L | 13 P1BHCG ns/L | 14 P1CHLA ns/L | 15 P1CHLG ns/L | 16 P1DIEL ns/L | 17 P1DMDT ns/L | 18 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|----------------------------|----------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 2 | 82 11 21 12:30 | 4.61 | | nObj | nObj | | | | 2 | | | | | |
| 6 | 82 11 22 12:30 | 7.72 | | nObj | nObj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | | | 100.00 | | | | | |
| Average exceedance factor: | | | | | | | | | 2.00 | | | | | |

STATION #10 Humber River @ Steeles Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 2 | 82 11 21 13:16 | 4.31 | | n0bj | n0bj | | | | | | | | |
| 4 | 82 11 22 02:00 | 8.26 | | n0bj | n0bj | | | | | | | | |

No. of valid samples: 0 0 0 2 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #11 Black Creek @ Lawrence Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 11 21 11:50 | 1.39 | | n0bj | n0bj | 16 | | | | | | | |
| 4 | 82 11 21 15:00 | 1.39 | | n0bj | n0bj | 10 | | | | | | | |

No. of valid samples: 0 0 0 2 1 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 2 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 100.00 0.00
 Average exceedance factor: 1.30

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 WET EVENT 3 - NOVEMBER 21 to NOVEMBER 22, 1982
 Pesticides and Organic Parameters

| STATION #1 Taylor Creek @ Don R | | | | | | | | | | | | | | |
|---------------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| # | Date and Time | FLOW m3/s | P1HEPE ng/L | P1HEPT ng/L | P1MIRX ng/L | P1OCHL ng/L | P1OPDT ng/L | P1PCBT ng/L | P1PPDD ng/L | P1PPDE ng/L | P1PPDT ng/L | P3245T ng/L | P324D ng/L | P324DB ng/L |
| 5 | 82 11 21 20:28 | 0.53 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | | |

| STATION #2 Don River @ mouth | | | | | | | | | | | | | | |
|------------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| # | Date and Time | FLOW m3/s | P1HEPE ng/L | P1HEPT ng/L | P1MIRX ng/L | P1OCHL ng/L | P1OPDT ng/L | P1PCBT ng/L | P1PPDD ng/L | P1PPDE ng/L | P1PPDT ng/L | P3245T ng/L | P324D ng/L | P324DB ng/L |
| 4 | 82 11 21 19:10 | 8.35 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | | | |

| STATION #3 Humber River @ Bloor St | | | | | | | | | | | | | | |
|------------------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| # | Date and Time | FLOW m3/s | P1HEPE ng/L | P1HEPT ng/L | P1MIRX ng/L | P1OCHL ng/L | P1OPDT ng/L | P1PCBT ng/L | P1PPDD ng/L | P1PPDE ng/L | P1PPDT ng/L | P3245T ng/L | P324D ng/L | P324DB ng/L |
| 2 | 82 11 22 02:30 | 11.10 | | | | nObj | nObj | 40P54 | nObj | | | nObj | | nObj |
| 7 | 82 11 22 16:00 | 12.52 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | | | | 0.00 | |
| Average exceedance factor: | | | | | | | | 40.00 | | | | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ns/L | PIHEPT ns/L | PIHIX ns/L | PIOCHL ns/L | PIOPDT ns/L | PIPCBT ns/L | PIPPDD ns/L | PIPPDE ns/L | PIPPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 82 11 21 11:30 | 3.86 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 82 11 21 15:00 | 4.19 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ns/L | PIHEPT ns/L | PIHIX ns/L | PIOCHL ns/L | PIOPDT ns/L | PIPCBT ns/L | PIPPDD ns/L | PIPPDE ns/L | PIPPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 3 | 82 11 21 13:45 | 3.76 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 5 | 82 11 21 15:45 | 2.42 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ns/L | PIHEPT ns/L | PIHIX ns/L | PIOCHL ns/L | PIOPDT ns/L | PIPCBT ns/L | PIPPDD ns/L | PIPPDE ns/L | PIPPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 2 | 82 11 22 02:20 | 16.23 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 82 11 22 11:00 | 16.31 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor: 0.00

STATION #7 Humber River @ Lawrence Ave

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|----------------------------|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 2 | 82 11 22 01:30 | 13.66 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| 6 | 82 11 22 10:30 | 16.89 | | | | nObj | nObj | 40P54 | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | | | | 0.00 | |
| Average exceedance factor: | | | | | | | | 40.00 | | | | | | |

STATION #8 W Humber R @ Main Humber R

[illegible]

STATION #9 Main Humber R @ W Humber R

[illegible]

STATION #10 Humber River @ Steeles Ave

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|----------------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P3245T | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 2 | 82 11 21 13:16 | 4.31 | | | | nObj | nObj | | nObj | | 25 | nObj | | nObj |
| 4 | 82 11 22 02:00 | 8.26 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | | | | 100.00 | | | |
| Average exceedance factor: | | | | | | | | | | | 8.33 | | | |

STATION #11 Black Creek @ Lawrence Ave

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|----------------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P3245T | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 11 21 11:50 | 1.39 | | | | nObj | nObj | 30P54 | nObj | | | nObj | | nObj |
| 4 | 82 11 21 15:00 | 1.39 | | | | nObj | nObj | | nObj | | | nObj | | nObj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | 0.00 | | | | |
| Average exceedance factor: | | | | | | | | 30.00 | | | | | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA - EXCEEDANCE VALUES
WET EVENT 3 - NOVEMBER 21 to NOVEMBER 22, 1982
Pesticides and Organic Parameters

[illegible][illegible][illegible]

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 1 | 82 11 21 11:30 | 3.86 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |
| 4 | 82 11 21 15:00 | 4.19 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

Average exceedance factor:

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 3 | 82 11 21 13:45 | 3.76 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |
| 5 | 82 11 21 15:45 | 2.42 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

Average exceedance factor:

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 2 | 82 11 22 02:20 | 16.23 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |
| 6 | 82 11 22 11:00 | 16.31 | nObj | | nObj | | nObj | nObj | nObj | nObj | nObj | nObj | nObj |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

Average exceedance factor:

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 2 | 82 11 22 01:30 | 13.66 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 82 11 22 10:30 | 16.89 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 2 | 82 11 22 03:30 | 4.97 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 82 11 22 12:30 | 4.48 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 2 | 82 11 21 12:30 | 4.61 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 82 11 22 12:30 | 7.72 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m ³ /s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|---------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ng/L | P3DICA ng/L | P3PICL ng/L | P3SILV ng/L | X2HCB ng/L | X3234 ng/L | X32345 ng/L | X32356 ng/L | X3245 ng/L | X3246 ng/L | X3PCPH ng/L |
| 2 | 82 11 21 13:16 | 4.31 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 82 11 22 02:00 | 8.26 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

Average exceedance factor:

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|----------------|---------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ng/L | P3DICA ng/L | P3PICL ng/L | P3SILV ng/L | X2HCB ng/L | X3234 ng/L | X32345 ng/L | X32356 ng/L | X3245 ng/L | X3246 ng/L | X3PCPH ng/L |
| 1 | 82 11 21 11:50 | 1.39 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 82 11 21 15:00 | 1.39 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples:

0

0

0

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

Average exceedance factor:

APPENDIX I
TABLE 5
DRY EVENT NO. 1 EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 1 - OCTOBER 5, 1981
 Conventional Water Quality Parameters and Bacteria

STATION #1 Taylor Creek @ Don R.

| # | Date and Time | FLOW m ³ /s | Fecal Coliform | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------|----------------|---------------|------|-----------------------|----------------------|--------------------|-----------------|
| | | | 4/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 10 05 10:10 | 0.14 | 4100 | | | | nObJ | 0.045 | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | | 41.00 | | | | | 1.50 | | |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal Coliform | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------|----------------|---------------|------|-----------------------|----------------------|--------------------|-----------------|
| | | | 4/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 10 05 11:10 | 1.52 | 69000 | 12.50 | 0.033 | | nObJ | 0.168 | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | | | 100.00 | 100.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | | 690.00 | 1.25 | 1.68 | | | 5.60 | | |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Fecal Coliform | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------|----------------|---------------|------|-----------------------|----------------------|--------------------|-----------------|
| | | | 4/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |
| 1 | 82 10 05 11:30 | 2.57 | 520 | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | 5.20 | | | | | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|--------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|--|------|--|------|-------|
| 1 | 82 10 05 11:30 | 0.38 | 740 | | | | nObJ | | nObJ | 35.30 |
|---|----------------|------|-----|--|--|--|------|--|------|-------|

| | | | | | | | | |
|----------------------------|---|------|------|------|---|------|---|--------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 0.00 | | 100.00 |
| Average exceedance factor: | | 7.40 | | | | | | 1.41 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|--------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|------|--|--|--|------|-------|------|--|
| 1 | 82 10 05 13:30 | 0.30 | 1360 | | | | nObJ | 0.450 | nObJ | |
|---|----------------|------|------|--|--|--|------|-------|------|--|

| | | | | | | | | |
|----------------------------|---|-------|---|------|---|--------|---|------|
| No. of valid samples: | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | 0.00 | | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | 13.60 | | | | 15.00 | | |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|--------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, res. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|------|------|--|------|--|
| 1 | 82 10 05 12:15 | 2.36 | 300 | | | 8.51 | nObJ | | nObJ | |
|---|----------------|------|-----|--|--|------|------|--|------|--|

| | | | | | | | | |
|----------------------------|---|------|------|--------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 100.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | 3.00 | | 0.00 | | | | |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|--------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt./react mg/L P | Unf./total mg/L P | Filt./a. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|------|------|--|------|--|
| 1 | 82 10 05 11:00 | 2.70 | 120 | | | 8.57 | nObJ | | nObJ | |
|---|----------------|------|-----|--|--|------|------|--|------|--|

| | | | | | | | | |
|----------------------------|------|------|------|--------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 100.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | 1.20 | | | 0.00 | | | | |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|--------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt./react mg/L P | Unf./total mg/L P | Filt./a. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|--|------|--|------|--|
| 1 | 82 10 05 10:00 | 0.33 | 140 | | | | nObJ | | nObJ | |
|---|----------------|------|-----|--|--|--|------|--|------|--|

| | | | | | | | | |
|----------------------------|------|------|------|------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | 1.40 | | | | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|--------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt./react mg/L P | Unf./total mg/L P | Filt./a. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|-----|--|--|--|------|--|------|--|
| 1 | 82 10 05 10:00 | 1.68 | 110 | | | | nObJ | | nObJ | |
|---|----------------|------|-----|--|--|--|------|--|------|--|

| | | | | | | | | |
|----------------------------|------|------|------|------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | 1.10 | | | | | | | |

STATION #10 Humber River @ Stables Ave

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 | NH3 | PH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|-----------------------------------|--------|--------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | mg/L O | mg/L N | | Filt, react mg/L P | Unf, total mg/L P | Filt, r. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|--|--|--|--|------|--|------|--|
| 1 | 82 10 05 09:00 | 2.10 | | | | | nObJ | | nObJ | |
|---|----------------|------|--|--|--|--|------|--|------|--|

| | | | | | | | | |
|----------------------------|---|------|---|------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 | NH3 | PH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|---------------------------|-----------------------------------|--------|--------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | mg/L O | mg/L N | | Filt, react mg/L P | Unf, total mg/L P | Filt, r. mg/L | Partic. mg/L |

| | | | | | | | | | | |
|---|----------------|------|------|--|--|--|------|-------|------|--|
| 1 | 82 10 05 11:45 | 0.13 | 1460 | | | | nObJ | 0.225 | nObJ | |
|---|----------------|------|------|--|--|--|------|-------|------|--|

| | | | | | | | | |
|----------------------------|---|-------|------|------|---|--------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | 14.60 | | | | 7.50 | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 1 - OCTOBER 5, 1982
 Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R.

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 10:10 | 0.14 | | | 0.015 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 3.00 | | | | |

STATION #2 Don River @ mouth:

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 11:10 | 1.52 | | | 0.012 | | | 0.051 | 0.070 |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 100.00 | 100.00 |
| Average exceedance factor: | | | | | 2.40 | | | 2.04 | 2.33 |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 11:30 | 2.57 | | | 0.007 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.40 | | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 11:30 | 0.38 | | | 0.017 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 3.40 | | | | |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 13:30 | 0.30 | | | 0.020 | | | | 0.040 |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | | | 4.00 | | | | 1.33 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 12:15 | 2.36 | | | 0.005 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.00 | | | | |

STATION #7 Hunter River @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 11:00 | 2.70 | | | 0.005 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.20 | | | | |

STATION #8 W Hunter R @ Main Hunter R

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 10:00 | 0.33 | | | 0.005 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.00 | | | | |

STATION #9 Main Hunter R @ W Hunter R

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 10:00 | 1.60 | | | 0.005 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.00 | | | | |

STATION #10 Number River @ Staples Ave

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 09:00 | 2.10 | | | 0.008 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.60 | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 05 11:45 | 0.13 | | | 0.011 | | | | |
| No. of valid samples: | | | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 100.00 | | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 2.20 | | | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 1 - OCTOBER 5th 1992
 Pesticides and Organic Parameters

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STATION #4 Mimico Creek @ South

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BKCH | P1BKCB | P1BKCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 05 11:30 | 0.38 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #5 Black Creek @ Scarlett Rd

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BKCH | P1BKCB | P1BKCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 05 13:30 | 0.30 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #6 Humber River @ Scarlett Rd

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BKCH | P1BKCB | P1BKCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 05 12:15 | 2.36 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1RCHO | P1RCHO | P1RCHO | P1CHLA | P1CHLB | P1CHLC | P1CHLD | P1CHLE | P1CHFO | P1CHFO | P1CHFO |
| # | Date and Time | m3/s | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| 1 | 02 10 05 14:00 | 2.70 | NDND | NDND | | | | | | | | |

average recommended practice:

[illegible]

Average exceedance factor:

| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1A1BB | P1B1CA | P1B1CB | P1B1CC | P1C1LA | P1C1LG | P1D1EL | P1D1DT | P1E1D1 | P1E1D2 | P1E1D3 |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 05 10:00 | 1.68 | | ncbu | ncbu | | | | | | | |

Average exceedance factor:

STATION #10 Humber River @ Steeles Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DHDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 10 05 09:00 | 2.10 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Average exceedance factor:

STATION #11 Black Creek @ Lawrence Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DHDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 10 05 11:45 | 0.13 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

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STATION #7 Hubber River @ Lawrence Ave

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1H1RX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 10 05 11:00 | 2.70 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances:

0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #8 W Hubber R @ Main Hubber R

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1H1RX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 10 05 10:00 | 0.33 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances:

0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #9 Main Hubber R @ W Hubber R

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | FLOW | P1HEPE | P1HEPT | P1H1RX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 82 10 05 10:00 | 1.68 | | | nObJ | nObJ | | nObJ | | | nObJ | | nObJ |

No. of valid samples:

0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances:

0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

[illegible][illegible]

Pesticides and Organic Pesticides

[illegible][illegible]

```

No. of valid samples:      0      0      0      0      0      0      0      0      0      0      0
No. of exceedances:       0      0      0      0      0      0      0      0      0      0      0
% of samples exceeding:
Average exceedance factor:

```

[illegible][illegible][illegible]

| # | Date and Time | Flow m ³ /s | B4 P3C4BP mg/L | B5 P3B1CA mg/L | B6 P3B1CL mg/L | B7 P3B1LV mg/L | B8 X2K0CB mg/L | B9 X3C0BA mg/L | B10 X3C0AB mg/L | B11 X3C0SC mg/L | B12 X3C0SB mg/L | B13 X3C0AL mg/L | B14 X3PCPB mg/L |
|----------------------------|----------------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | 02-10-05 11:00 | 2.70 | nObJ | | nObJ | | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ | nObJ |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | - | | | | | | |

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APPENDIX I
TABLE 6
DRY EVENT NO. 2 EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 2 - OCTOBER 26, 1992
 Conventional Water Quality Parameters and Bacteria

STATION #1 Taylor Creek @ Don P

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|-------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, re. mg/L | Partic. mg/L |
| 1 | 02 10 26 13:50 | 0.15 | 1060 | | | | nObJ | 0.032 | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | | 10.60 | | | | | 1.07 | | |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|-------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, re. mg/L | Partic. mg/L |
| 1 | 02 10 26 14:15 | 1.78 | 6700 | | | | nObJ | 0.322 | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | | 67.00 | | | | | 10.73 | | |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|-----------------------------------|----------------|---------------|------|-----------------------|----------------------|-------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, re. mg/L | Partic. mg/L |
| 1 | 02 10 26 15:25 | 3.79 | 140 | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | 1.40 | | | | | | | |

STATION #4 Mixico Creek @ mouth

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 14:50 | 0.41 | 220 | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | 2.20 | | | | | | | |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 11:45 | 0.25 | 4300 | | | | nObJ | 0.090 | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | | | 43.00 | | | | | 3.00 | | |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 11:30 | 2.59 | | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | | | | | |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | 4/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 10:45 | 2.76 | | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | | | | | |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|--------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | 4/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 09:50 | 0.41 | | | | 8.50 | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | 0.00 | 100.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | 0.00 | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|----------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | 4/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 82 10 26 09:50 | 1.67 | | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | | | | | |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|--------------|---------------------|----------------|---------------|----|-----------------------|----------------------|-----------------|-----------------|
| | | | Coliform #/100mL | | | | Filt, react mg/L P | Unf, total mg/L P | Filtra. mg/L | Partic. mg/L |
| | | | Geom. Mean | | | | | | | |

1 82 10 26 09:55 2.30

nOBJ

nOBJ

| | | | | | | | | |
|----------------------------|---|------|------|------|---|------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 |
| Average exceedance factor: | | | | | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|---|---------------|--------------|---------------------|----------------|---------------|----|-----------------------|----------------------|-----------------|-----------------|
| | | | Coliform #/100mL | | | | Filt, react mg/L P | Unf, total mg/L P | Filtra. mg/L | Partic. mg/L |
| | | | Geom. Mean | | | | | | | |

1 82 10 26 11:10 0.10

420

nOBJ

0.113

nOBJ

| | | | | | | | | |
|----------------------------|------|------|------|------|---|--------|---|------|
| No. of valid samples: | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 100.00 | | 0.00 |
| Average exceedance factor: | 4.20 | | | | | 3.77 | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 2 - OCTOBER 26, 1982
 Inorganic Parameters (Metals)

STATION #1 Taylor Creek @ Don R

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 13:50 | 0.15 | 0.0006 | | 0.013 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 3.00 | | 2.60 | | | | |

STATION #2 Don River @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 14:15 | 1.78 | 0.0004 | | 0.014 | | | | 0.035 |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 2.00 | | 2.80 | | | | 1.17 |

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 15:25 | 3.79 | | | 0.008 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | | | 1.60 | | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 14:50 | 0.41 | 0.0003 | | 0.012 | | | | 0.032 |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 1.50 | | 2.40 | | | | 1.07 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 11:45 | 0.25 | 0.0005 | | 0.017 | | | | 0.049 |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 2.50 | | 3.40 | | | | 1.63 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 11:30 | 2.59 | 0.0003 | | 0.007 | | | | 0.042 |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 1.50 | | 1.40 | | | | 1.40 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 10:45 | 2.76 | 0.0003 | | 0.006 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 1.50 | | 1.20 | | | | |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 09:50 | 0.41 | 0.0004 | | 0.011 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 2.00 | | 2.20 | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 09:50 | 1.67 | 0.0003 | | 0.007 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 1.50 | | 1.40 | | | | |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 09:55 | 2.30 | 0.0004 | | 0.009 | | | | |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average exceedance factor: | | | 2.00 | | 1.60 | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 82 10 26 11:10 | 0.10 | 0.0005 | | 0.016 | | | | 0.030 |
| No. of valid samples: | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| No. of exceedances: | | | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| % of samples exceeding: | | | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| Average exceedance factor: | | | 2.50 | | 3.20 | | | | 1.00 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 2 - OCTOBER 26, 1992
 Pesticides and Organic Parameters

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| STATION #2 Don River @ mouth | | | | | | | | | | | | | |
|------------------------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| # Date and Time | FLOW m ³ /s | P1ALDR ns/L | P1BHCA ns/L | P1BHCB ns/L | P1BHCG ns/L | P1CHLA ns/L | P1CHLG ns/L | P1DIEL ns/L | P1DMDT ns/L | P1END1 ns/L | P1END2 ns/L | P1ENDR ns/L | P1ENDS ns/L |
| 1 82 10 26 14:15 | 1.78 | | nObJ | nObJ | 12 | | | | | | | | |
| No. of valid samples: | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | 100.00 | | | | | | | | |
| Average exceedance factor: | | | | | 1.20 | | | | | | | | |

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STATION #7 Humber River @ Lawrence Ave

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 26 10:45 | 2.76 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #8 W Humber R @ Main Humber R

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 26 09:50 | 0.41 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

STATION #9 Main Humber R @ W Humber R

| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | FLOW | P1ALDR | P1BHCA | P1BHCB | P1BHCG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 82 10 26 09:50 | 1.67 | | nObJ | nObJ | | | | | | | | |

No. of valid samples: 0 0 0 1 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding: 0.00
 Average exceedance factor:

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| | | | | | | | | | | | | |
|----------------------------|------|---|---|---|---|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 0.00 | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 DRY EVENT 2 - OCTOBER 26, 1992
 Pesticides and Organic Parameters

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STATION #4 Mimico Creek @ mouth

| STATION 44 LIMITED CREEK & MOUNTAIN | | | | | | | | | | | | | | |
|-------------------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| # | Date and Time | FLOW m3/s | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 82 10 26 14:50 | 0.41 | | | | nObj | nObj | | nObj | | | nObj | | nObj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #5 Black Creek @ Scarlett Rd

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|---|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| # | Date and Time | FLOW m3/s | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 82 10 26 11:45 | 0.25 | | | | nObj | nObj | | nObj | | | nObj | | nObj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

STATION #6 Humber River @ Scarlett Rd

| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|---|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| # | Date and Time | FLOW m3/s | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 82 10 26 11:30 | 2.59 | | | | nObj | nObj | | nObj | | | nObj | | nObj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 % of samples exceeding:
 Average exceedance factor:

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TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA - EXCEEDANCE VALUES
DRY EVENT 2 - OCTOBER 26, 1982
Pesticides and Organic Parameters

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STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |

| | | | | | | | | | | | | | |
|---|----------------|------|------|--|------|--|------|------|------|------|------|------|------|
| 1 | 82 10 26 09:55 | 2.30 | n0bJ | | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
|---|----------------|------|------|--|------|--|------|------|------|------|------|------|------|

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---------------|--------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |

| | | | | | | | | | | | | | |
|---|----------------|------|------|--|------|--|------|------|------|------|------|------|------|
| 1 | 82 10 26 11:10 | 0.10 | n0bJ | | n0bJ | | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ | n0bJ |
|---|----------------|------|------|--|------|--|------|------|------|------|------|------|------|

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

APPENDIX I
TABLE 7
SPRING RUNOFF EXCEEDANCES

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA - EXCEEDANCE VALUES
SPRING RUNOFF - MARCH 10 to APRIL 28, 1993
Conventional Water Quality Parameters and Bacteria

| STATION #3 Humber River @ Bloor St | | | | | | | | | |
|------------------------------------|----------------|--------------|-----------------------------------|--------|--------|------|-----------------------|----------------------|-----------------------|
| # | Date and Time | FLOW m3/s | Fecal | BOD5 | NH3 | PH | Phosphates | Phosphorus | Residue |
| | | | Coliform #/100mL Geom. Mean | mg/L O | mg/L N | | Filt./react mg/L P | Unf./total mg/L P | Filt./Residue mg/L |
| 1 | 83 03 10 17:00 | 3.82 | 278 | | | | n0bj | 0.123 | n0bj |
| 2 | 83 03 17 14:20 | 2.35 | | | | | n0bj | | n0bj |
| 3 | 83 03 18 22:45 | 7.87 | | | | | n0bj | 0.760 | n0bj |
| 4 | 83 03 19 06:20 | 8.22 | | | | | n0bj | 0.362 | n0bj |
| 5 | 83 03 19 13:05 | 14.10 | | | | | n0bj | 0.930 | n0bj |
| 6 | 83 03 19 21:00 | 14.17 | | | | | n0bj | 0.450 | n0bj |
| 7 | 83 03 20 05:00 | 10.98 | | | | | n0bj | 0.540 | n0bj |
| 8 | 83 03 20 11:35 | 8.12 | | | | | n0bj | 0.425 | n0bj |
| 9 | 83 03 20 20:50 | 4.75 | | | | | n0bj | 0.452 | n0bj |
| 10 | 83 03 21 05:00 | 6.45 | | | | | n0bj | 0.357 | n0bj |
| 11 | 83 03 21 12:00 | 4.24 | | | | | n0bj | 0.250 | n0bj |
| 12 | 83 03 21 22:55 | 3.62 | | | | | n0bj | 0.168 | n0bj |
| 13 | 83 03 23 17:50 | 1.62 | | | | | n0bj | 0.061 | n0bj |
| 14 | 83 03 25 14:50 | 2.00 | | | | | n0bj | 0.042 | n0bj |
| 15 | 83 03 25 18:25 | | | | | | n0bj | 0.034 | n0bj |
| 16 | 83 03 25 22:45 | 2.65 | | | | | n0bj | 0.050 | n0bj |
| 17 | 83 03 26 04:00 | 2.30 | | | | | n0bj | 0.066 | n0bj |
| 18 | 83 03 26 09:10 | 4.35 | | | | | n0bj | 0.043 | n0bj |
| 19 | 83 03 27 04:15 | 5.63 | | | | | n0bj | 1.520 | n0bj |
| 20 | 83 03 27 08:50 | 3.30 | | | | | n0bj | 0.285 | n0bj |
| 21 | 83 03 27 14:50 | 5.06 | | | | | n0bj | 0.143 | n0bj |
| 22 | 83 03 27 17:15 | 6.49 | | | | | n0bj | 0.210 | n0bj |
| 23 | 83 03 27 22:15 | 4.34 | | | | | n0bj | 0.292 | n0bj |
| 24 | 83 03 28 16:10 | 5.17 | | | | | n0bj | 0.145 | n0bj |
| 25 | 83 03 29 07:30 | 7.23 | | | | | n0bj | 0.290 | n0bj |
| 26 | 83 03 29 10:55 | 5.59 | | | | | n0bj | 0.283 | n0bj |
| 27 | 83 03 29 12:55 | 4.79 | | | | | n0bj | 0.230 | n0bj |
| 28 | 83 03 29 15:40 | 4.68 | | | | | n0bj | 0.143 | n0bj |
| 29 | 83 03 30 12:50 | 3.96 | | | | | n0bj | 0.078 | n0bj |
| 30 | 83 04 06 13:45 | 5.55 | | | | | n0bj | 0.057 | n0bj |
| 31 | 83 04 13 12:50 | 4.24 | | | | | n0bj | 0.150 | n0bj |
| 32 | 83 04 21 15:20 | 3.00 | | | | | n0bj | 0.030 | n0bj |
| 33 | 83 04 28 13:30 | 2.25 | | | | | n0bj | | n0bj |
| No. of valid samples: | | | 27 | 1 | 16 | 33 | 0 | 33 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 31 | 0 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 93.94 | 66.67 |
| Average exceedance factor: | | | 2.78 | | | | | 9.64 | 7.54 |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Fecal | BOD5 mg/L O | NH3 mg/L N | PH | Phosphates | Phosphorus | Residue | Residue |
|----|----------------|---------------------------|-----------------------------------|----------------|---------------|----|-----------------------|----------------------|------------------|-----------------|
| | | | Coliform #/100mL Geom. Mean | | | | Filt, react mg/L P | Unf, total mg/L P | Filt, r. mg/L | Partic. mg/L |
| 1 | 83 03 10 17:30 | 1.51 | 131 | | | | nObj | 0.103 | nObj | |
| 2 | 83 03 17 15:00 | 0.30 | | | | | nObj | 0.034 | nObj | |
| 3 | 83 03 18 23:05 | 9.31 | | | | | nObj | 1.210 | nObj | 740.00 |
| 4 | 83 03 19 06:50 | 12.51 | | | | | nObj | 0.680 | nObj | 193.00 |
| 5 | 83 03 19 13:35 | 9.57 | | | | | nObj | 1.410 | nObj | 753.00 |
| 6 | 83 03 19 21:30 | 5.15 | | | | | nObj | 0.335 | nObj | 257.00 |
| 7 | 83 03 20 05:30 | 3.11 | | | | | nObj | 0.180 | nObj | 135.00 |
| 8 | 83 03 20 12:05 | 2.21 | | | | | nObj | 0.110 | nObj | 65.80 |
| 9 | 83 03 20 21:20 | 1.67 | | | | | nObj | 0.068 | nObj | 30.60 |
| 10 | 83 03 21 05:35 | 1.37 | | | | | nObj | 0.048 | nObj | |
| 11 | 83 03 21 12:50 | 1.19 | | | | | nObj | 0.065 | nObj | |
| 12 | 83 03 21 23:15 | 0.87 | | | | | nObj | 0.030 | nObj | |
| 13 | 83 03 23 18:25 | 1.20 | | | | | nObj | 0.122 | nObj | |
| 14 | 83 03 25 15:30 | 0.87 | | | | | nObj | 0.095 | nObj | |
| 15 | 83 03 25 18:45 | | | | | | nObj | | nObj | |
| 16 | 83 03 25 23:10 | 0.99 | | | | | nObj | | nObj | |
| 17 | 83 03 26 04:20 | 0.90 | | | | | nObj | | nObj | |
| 18 | 83 03 26 09:35 | 0.70 | | | | | nObj | | nObj | |
| 19 | 83 03 27 04:40 | 1.11 | | | | | nObj | | nObj | |
| 20 | 83 03 27 09:20 | 0.88 | | | | | nObj | | nObj | |
| 21 | 83 03 27 15:15 | 3.28 | | | | | nObj | 0.275 | nObj | 92.80 |
| 22 | 83 03 27 17:45 | 3.68 | | | | | nObj | 0.245 | nObj | 120.00 |
| 23 | 83 03 27 22:50 | 3.14 | | | | | nObj | 0.230 | nObj | 78.60 |
| 24 | 83 03 28 12:00 | 4.28 | | | | | nObj | 0.190 | nObj | 90.10 |
| 25 | 83 03 28 22:45 | 5.23 | | | | | nObj | 0.383 | nObj | 214.00 |
| 27 | 83 03 29 00:15 | 2.29 | | | | | nObj | 0.270 | nObj | 145.00 |
| 28 | 83 03 29 08:20 | 1.75 | | | | | nObj | 0.240 | nObj | 52.40 |
| 29 | 83 03 29 13:10 | 1.18 | | | | | nObj | 0.145 | nObj | 31.30 |
| 30 | 83 03 30 13:15 | 1.01 | | | | | nObj | 0.076 | nObj | |
| 31 | 83 04 06 14:10 | 0.91 | | | | | nObj | | nObj | |
| 32 | 83 04 13 13:10 | 0.64 | | | | | nObj | | nObj | |
| 33 | 83 04 21 16:00 | 0.47 | | | | | nObj | | nObj | |
| 34 | 83 04 28 13:50 | | | | | | nObj | | nObj | |

| | | | | | | | | |
|----------------------------|------|------|------|------|---|-------|---|-------|
| No. of valid samples: | 27 | 1 | 25 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 23 | 0 | 15 |
| % of samples exceeding: | | 0.00 | 0.00 | 0.00 | | 69.70 | | 45.45 |
| Average exceedance factor: | 1.31 | | | | | 9.48 | | 8.01 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW | Fecal | BOD5 | NH3 | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|------|-----------------------|--------|--------|------|-------------|------------|----------|---------|
| | | m3/s | Coliform | mg/L O | mg/L N | | Filt, react | Unf, total | Filt, r. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 83 03 10 15:15 | 0.78 | 1290 | | | | nObJ | 0.048 | nObJ | |
| 2 | 83 03 17 13:50 | 0.27 | | | | | nObJ | 0.058 | nObJ | |
| 3 | 83 03 18 16:30 | 0.38 | | | | | nObJ | 0.092 | nObJ | |
| 4 | 83 03 19 00:45 | 3.82 | | | | | nObJ | 0.350 | nObJ | 151.00 |
| 5 | 83 03 19 08:05 | 9.65 | | | | | nObJ | 0.950 | nObJ | 337.00 |
| 6 | 83 03 19 20:20 | 3.55 | | | | | nObJ | 0.350 | nObJ | 229.00 |
| 7 | 83 03 20 04:30 | 2.17 | | | | | nObJ | 0.205 | nObJ | 116.00 |
| 8 | 83 03 20 11:15 | 1.55 | | | | | nObJ | 0.120 | nObJ | 76.30 |
| 9 | 83 03 20 20:15 | 1.05 | | | | | nObJ | 0.107 | nObJ | 36.60 |
| 10 | 83 03 21 04:40 | 0.80 | | | | | nObJ | 0.073 | nObJ | |
| 11 | 83 03 21 11:35 | 0.73 | | | | | nObJ | 0.091 | nObJ | |
| 12 | 83 03 21 22:10 | 0.57 | | | | | nObJ | 0.100 | nObJ | |
| 13 | 83 03 23 16:10 | 0.84 | | | | | nObJ | 0.125 | nObJ | 33.20 |
| 14 | 83 03 25 10:15 | 0.30 | | | | | nObJ | 0.052 | nObJ | |
| 15 | 83 03 25 16:05 | 0.52 | | | | | nObJ | 0.085 | nObJ | |
| 16 | 83 03 25 18:00 | 0.51 | | | | | nObJ | 0.120 | nObJ | |
| 17 | 83 03 26 03:35 | 0.36 | | | | | nObJ | 0.103 | nObJ | |
| 18 | 83 03 26 10:20 | 0.29 | | | | | nObJ | 0.049 | nObJ | |
| 19 | 83 03 27 03:40 | 0.41 | | | | | nObJ | 0.041 | nObJ | |
| 20 | 83 03 27 09:55 | 0.41 | | | | | nObJ | | nObJ | |
| 21 | 83 03 27 12:45 | 1.75 | | | | | nObJ | 2.720 | nObJ | 68.40 |
| 22 | 83 03 27 17:00 | 3.00 | | | | | nObJ | 0.280 | nObJ | 142.00 |
| 23 | 83 03 27 18:50 | 2.22 | | | | | nObJ | 0.227 | nObJ | 71.60 |
| 24 | 83 03 28 01:15 | 1.34 | | | | | nObJ | 0.200 | nObJ | 65.30 |
| 25 | 83 03 28 03:40 | 1.19 | | | | | nObJ | 0.170 | nObJ | 31.70 |
| 26 | 83 03 28 12:00 | 2.65 | | | | | nObJ | 0.116 | nObJ | 30.90 |
| 27 | 83 03 28 13:55 | 2.46 | | | | | nObJ | 0.423 | nObJ | 74.40 |
| 28 | 83 03 28 17:10 | 2.44 | | | | | nObJ | 0.318 | nObJ | 68.40 |
| 31 | 83 03 30 12:25 | 0.63 | | | | | nObJ | 0.083 | nObJ | |
| 32 | 83 04 06 13:25 | 0.60 | | | | | nObJ | 0.050 | nObJ | |
| 33 | 83 04 13 12:20 | 0.73 | | | | | nObJ | 0.105 | nObJ | |
| 34 | 83 04 21 14:50 | 0.52 | | | | | nObJ | 0.077 | nObJ | |
| 35 | 83 04 28 13:10 | 0.35 | | | | | nObJ | 0.042 | nObJ | |
| <hr/> | | | | | | | | | | |
| No. of valid samples: | | | 27 | 1 | 29 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 15 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 96.97 | | 45.45 |
| Average exceedance factor: | | | 12.80 | | | | | 8.26 | | 4.08 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|-------------|------------|---------|---------|
| | | | Coliform | | | | Filt, resct | Unf, total | Filtra. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 83 03 10 14:45 | 20.76 | 145 | | | | nObJ | 0.181 | nObJ | 160.00 |
| 2 | 83 03 17 13:30 | 5.09 | | | | | nObJ | 0.038 | nObJ | |
| 3 | 83 03 18 22:15 | 16.48 | | | | | nObJ | 0.875 | nObJ | 141.00 |
| 4 | 83 03 19 05:40 | 20.57 | | | | | nObJ | 0.232 | nObJ | 140.00 |
| 5 | 83 03 19 12:30 | 44.02 | | | | | nObJ | 0.560 | nObJ | 765.00 |
| 6 | 83 03 19 19:50 | 64.36 | | | | | nObJ | 0.580 | nObJ | 610.00 |
| 7 | 83 03 20 04:10 | 40.10 | | | | | nObJ | 0.940 | nObJ | 524.00 |
| 8 | 83 03 20 10:55 | 32.77 | | | | | nObJ | 0.445 | nObJ | 402.00 |
| 9 | 83 03 20 20:00 | 25.56 | | | | | nObJ | 0.390 | nObJ | 322.00 |
| 10 | 83 03 21 04:15 | 18.70 | | | | | nObJ | 0.345 | nObJ | 195.00 |
| 11 | 83 03 21 11:05 | 15.21 | | | | | nObJ | 0.195 | nObJ | 120.00 |
| 12 | 83 03 21 21:55 | 12.04 | | | | | nObJ | 0.138 | nObJ | 76.40 |
| 13 | 83 03 23 16:35 | 7.26 | | | | | nObJ | 0.064 | nObJ | |
| 14 | 83 03 25 14:15 | 5.05 | | | | | nObJ | 0.044 | nObJ | |
| 15 | 83 03 25 17:50 | | | | | | nObJ | 0.059 | nObJ | |
| 16 | 83 03 25 22:25 | 5.45 | | | | | nObJ | 0.135 | nObJ | |
| 17 | 83 03 26 03:20 | 5.71 | | | | | nObJ | 0.079 | nObJ | |
| 18 | 83 03 26 08:25 | 4.88 | | | | | nObJ | 0.069 | nObJ | |
| 19 | 83 03 27 03:30 | 5.90 | | | | | nObJ | 0.740 | nObJ | |
| 20 | 83 03 27 09:20 | 6.49 | | | | | nObJ | 0.127 | nObJ | 25.30 |
| 21 | 83 03 27 14:20 | 8.02 | | | | | nObJ | 0.173 | nObJ | 45.50 |
| 22 | 83 03 27 16:45 | 10.58 | | | | | nObJ | 0.102 | nObJ | 53.00 |
| 23 | 83 03 27 21:45 | 8.74 | | | | | nObJ | 0.108 | nObJ | 43.40 |
| 24 | 83 03 28 07:05 | 8.26 | | | | | nObJ | 0.243 | nObJ | 139.00 |
| 25 | 83 03 28 10:25 | 11.67 | | | | | nObJ | 0.305 | nObJ | 113.00 |
| 26 | 83 03 28 15:45 | 12.81 | | | | | nObJ | 0.170 | nObJ | 79.60 |
| 29 | 83 03 29 12:35 | 16.48 | | | | | nObJ | 0.230 | nObJ | 108.00 |
| 30 | 83 03 29 15:20 | 15.63 | | | | | nObJ | 0.253 | nObJ | 92.80 |
| 31 | 83 03 30 12:10 | 11.30 | | | | | nObJ | 0.120 | nObJ | 36.20 |
| 32 | 83 04 06 13:10 | 12.27 | | | | | nObJ | 0.063 | nObJ | 30.70 |
| 33 | 83 04 13 12:10 | 11.67 | | | | | nObJ | 0.081 | nObJ | 48.40 |
| 34 | 83 04 21 14:30 | 5.90 | | | | | nObJ | 0.035 | nObJ | |
| 35 | 83 04 28 12:55 | 4.00 | | | | | nObJ | | nObJ | |
| No. of valid samples: | | | 27 | 1 | 16 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 23 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 96.97 | | 69.70 |
| Average exceedance factor: | | | 1.45 | | | | | 8.46 | | 7.43 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Fecal | BOD5 | NH3 | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|------------|--------|--------|------|-------------|------------|-------------|---------|
| | | | Coliform | | | | Filt, react | Unf, total | Filt, react | Partic. |
| | | | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| | | | Geom. Mean | | | | | | | |
| 1 | 83 03 10 14:20 | 19.77 | 114 | | | | n0bj | 0.202 | n0bj | 149.00 |
| 2 | 83 03 17 12:10 | 7.67 | | | | | n0bj | 0.037 | n0bj | |
| 3 | 83 03 18 21:45 | 14.61 | | | | | n0bj | 0.255 | n0bj | 173.00 |
| 4 | 83 03 19 05:15 | 20.16 | | | | | n0bj | 0.353 | n0bj | 119.00 |
| 5 | 83 03 19 12:05 | 46.92 | | | | | n0bj | 0.875 | n0bj | 751.00 |
| 6 | 83 03 19 18:50 | 72.70 | | | | | n0bj | 0.690 | n0bj | 597.00 |
| 7 | 83 03 20 03:25 | 51.47 | | | | | n0bj | 0.640 | n0bj | 533.00 |
| 8 | 83 03 20 08:45 | 41.48 | | | | | n0bj | 0.570 | n0bj | 423.00 |
| 9 | 83 03 20 18:50 | 28.66 | | | | | n0bj | 0.425 | n0bj | 354.00 |
| 10 | 83 03 21 03:25 | 20.96 | | | | | n0bj | 0.390 | n0bj | 211.00 |
| 11 | 83 03 21 10:10 | 17.11 | | | | | n0bj | 0.230 | n0bj | 132.00 |
| 12 | 83 03 21 21:00 | 13.93 | | | | | n0bj | 0.164 | n0bj | 81.20 |
| 13 | 83 03 23 14:15 | 9.94 | | | | | n0bj | 0.073 | n0bj | 26.80 |
| 14 | 83 03 25 13:00 | 7.37 | | | | | n0bj | 0.056 | n0bj | |
| 15 | 83 03 25 16:45 | | | | | | n0bj | 0.043 | n0bj | |
| 16 | 83 03 25 22:00 | 8.02 | | | | | n0bj | 0.087 | n0bj | |
| 17 | 83 03 25 23:55 | | | | | | n0bj | 2.650 | n0bj | |
| 18 | 83 03 26 02:50 | 7.67 | | | | | n0bj | 0.078 | n0bj | |
| 19 | 83 03 26 07:25 | 7.59 | | | | | n0bj | 0.041 | n0bj | 29.00 |
| 20 | 83 03 27 07:35 | 9.25 | | | | | n0bj | 0.115 | n0bj | 45.00 |
| 21 | 83 03 27 14:00 | 11.02 | | | | | n0bj | 0.110 | n0bj | 35.50 |
| 22 | 83 03 27 15:25 | | | | | | n0bj | 0.118 | n0bj | 35.40 |
| 23 | 83 03 27 16:30 | 11.65 | | | | | n0bj | 0.175 | n0bj | 52.30 |
| 24 | 83 03 27 20:45 | 11.96 | | | | | n0bj | 0.227 | n0bj | 43.60 |
| 25 | 83 03 28 15:25 | 14.61 | | | | | n0bj | 0.228 | n0bj | 87.40 |
| 26 | 83 03 29 06:15 | 25.11 | | | | | n0bj | 0.293 | n0bj | 89.20 |
| 27 | 83 03 29 09:50 | 21.76 | | | | | n0bj | 0.180 | n0bj | 119.00 |
| 28 | 83 03 29 12:20 | 19.38 | | | | | n0bj | 0.160 | n0bj | 62.90 |
| 29 | 83 03 29 15:05 | 17.85 | | | | | n0bj | 0.150 | n0bj | 96.50 |
| 30 | 83 03 30 11:35 | 12.93 | | | | | n0bj | 0.104 | n0bj | 29.70 |
| 31 | 83 04 06 12:55 | 13.59 | | | | | n0bj | 0.065 | n0bj | 33.20 |
| 32 | 83 04 13 11:05 | 13.93 | | | | | n0bj | 0.037 | n0bj | 51.90 |
| 33 | 83 04 21 14:05 | 8.57 | | | | | n0bj | 0.030 | n0bj | |
| 34 | 83 04 28 12:15 | 6.74 | | | | | n0bj | | n0bj | |
| No. of valid samples: | | | 28 | 1 | 16 | 34 | 0 | 34 | 0 | 34 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 33 | 0 | 26 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 97.06 | | 76.47 |
| Average exceedance factor: | | | 1.14 | | | | | 9.95 | | 6.71 |

STATION #8 W Humber R @ Main Humber R

| | | Fecal | | | | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|----------|--------|--------|------|-------------|------------|---------------|---------|
| | FLOW | Coliform | BOD5 | NH3 | pH | Filt, react | Unf, total | Filt, Residue | Partic. |
| # | Date and Time | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L |
| Geom. Mean | | | | | | | | | |
| 1 | 83 03 10 11:35 | 7.70 | 137 | | | n0bj | 0.139 | n0bj | 77.10 |
| 2 | 83 03 17 11:00 | 1.94 | | | | n0bj | 0.041 | n0bj | |
| 3 | 83 03 18 18:20 | 2.17 | | | | n0bj | 0.125 | n0bj | |
| 4 | 83 03 19 03:55 | 5.80 | | | | n0bj | 0.283 | n0bj | 235.00 |
| 5 | 83 03 19 11:00 | 15.24 | | | | n0bj | 0.420 | n0bj | 677.00 |
| 6 | 83 03 19 17:20 | 30.00 | | | | n0bj | 0.420 | n0bj | 765.00 |
| 7 | 83 03 20 01:00 | 21.93 | | | | n0bj | 0.405 | n0bj | 302.00 |
| 8 | 83 03 20 08:10 | 17.19 | | | | n0bj | 0.340 | n0bj | 216.00 |
| 9 | 83 03 20 17:30 | 10.49 | | | | n0bj | 0.320 | n0bj | 145.00 |
| 10 | 83 03 21 01:10 | 7.57 | | | | n0bj | 0.270 | n0bj | 123.00 |
| 11 | 83 03 21 08:10 | 5.17 | | | | n0bj | 0.222 | n0bj | 89.20 |
| 12 | 83 03 21 17:25 | 5.38 | | | | n0bj | 0.337 | n0bj | 65.70 |
| 13 | 83 03 23 13:00 | 2.11 | | | | n0bj | 0.110 | n0bj | 31.30 |
| 14 | 83 03 25 12:00 | 0.77 | | | | n0bj | 0.088 | n0bj | |
| 15 | 83 03 25 15:55 | | | | | n0bj | 0.045 | n0bj | |
| 16 | 83 03 25 18:15 | 0.96 | | | | n0bj | 0.085 | n0bj | |
| 17 | 83 03 25 23:05 | | | | | n0bj | 0.046 | n0bj | |
| 18 | 83 03 26 01:50 | 1.04 | | | | n0bj | 0.061 | n0bj | |
| 19 | 83 03 26 06:15 | 1.02 | | | | n0bj | 0.046 | n0bj | |
| 20 | 83 03 27 06:30 | 0.98 | | | | n0bj | 0.044 | n0bj | |
| 21 | 83 03 27 15:10 | 1.68 | | | | n0bj | 0.087 | n0bj | 40.40 |
| 22 | 83 03 27 18:00 | 1.64 | | | | n0bj | 0.066 | n0bj | 32.80 |
| 23 | 83 03 27 21:05 | 1.52 | | | | n0bj | 0.053 | n0bj | |
| 24 | 83 03 28 15:30 | 2.91 | | | | n0bj | 0.315 | n0bj | 61.30 |
| 25 | 83 03 29 05:25 | | | | | n0bj | 0.140 | n0bj | 64.60 |
| 26 | 83 03 29 08:15 | | | | | n0bj | 0.245 | n0bj | 66.70 |
| 27 | 83 03 29 10:45 | | | | | n0bj | 0.125 | n0bj | 61.70 |
| 28 | 83 03 29 14:20 | | | | | n0bj | 0.180 | n0bj | 61.60 |
| 29 | 83 03 30 10:15 | 2.70 | | | | n0bj | 0.134 | n0bj | |
| 30 | 83 04 06 11:10 | 2.10 | | | | n0bj | 0.087 | n0bj | 41.90 |
| 31 | 83 04 13 10:15 | 1.70 | | | | n0bj | 0.164 | n0bj | 56.30 |
| 32 | 83 04 21 11:05 | 0.77 | | | | n0bj | 0.091 | n0bj | |
| 33 | 83 04 28 10:45 | 0.44 | | | | n0bj | | n0bj | |
| No. of valid samples: | | 27 | 1 | 22 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 20 |
| % of samples exceeding: | | | 0.00 | 0.00 | 0.00 | | 96.97 | | 60.61 |
| Average exceedance factor: | | 1.37 | | | | | 5.76 | | 6.43 |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m ³ /s | Fecal Coliform #/100mL Geom. Mean | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|---------------------------|--|----------------|---------------|------|-----------------------|----------------------|-----------------|-----------------|
| | | | | | | | Filt, react mg/L P | Unf, total mg/L P | Filtre. mg/L | Partic. mg/L |
| 1 | 83 03 10 12:15 | 7.95 | 127 | | | | nObj | 0.155 | nObj | 201.00 |
| 2 | 83 03 17 11:30 | 1.85 | | | | | nObj | 0.032 | nObj | |
| 3 | 83 03 18 18:45 | 3.52 | | | | | nObj | 0.255 | nObj | 93.00 |
| 4 | 83 03 19 04:25 | 6.96 | | | | | nObj | 0.715 | nObj | 118.00 |
| 5 | 83 03 19 11:30 | 16.04 | | | | | nObj | 0.760 | nObj | 832.00 |
| 6 | 83 03 19 17:45 | 7.97 | | | | | nObj | 0.650 | nObj | 618.00 |
| 7 | 83 03 20 01:45 | 12.04 | | | | | nObj | 0.615 | nObj | 715.00 |
| 8 | 83 03 20 08:45 | 17.04 | | | | | nObj | 0.465 | nObj | 315.00 |
| 9 | 83 03 20 18:00 | 13.68 | | | | | nObj | 0.515 | nObj | 359.00 |
| 10 | 83 03 21 01:30 | 8.96 | | | | | nObj | 0.432 | nObj | 243.00 |
| 11 | 83 03 21 08:25 | 7.31 | | | | | nObj | 0.320 | nObj | 158.00 |
| 12 | 83 03 21 17:55 | 4.36 | | | | | nObj | 0.240 | nObj | 91.50 |
| 13 | 83 03 23 13:30 | 3.22 | | | | | nObj | 0.265 | nObj | 28.60 |
| 14 | 83 03 25 12:20 | 3.21 | | | | | nObj | 0.072 | nObj | 38.00 |
| 15 | 83 03 25 16:15 | | | | | | nObj | 1.310 | nObj | 44.60 |
| 16 | 83 03 25 18:30 | 3.64 | | | | | nObj | 0.084 | nObj | 34.90 |
| 17 | 83 03 25 23:25 | | | | | | nObj | 0.395 | nObj | |
| 18 | 83 03 26 02:10 | 3.42 | | | | | nObj | 0.068 | nObj | 45.00 |
| 19 | 83 03 26 06:30 | 3.34 | | | | | nObj | 0.056 | nObj | 26.50 |
| 20 | 83 03 27 07:00 | 3.98 | | | | | nObj | 0.085 | nObj | 50.75 |
| 21 | 83 03 27 15:35 | 5.41 | | | | | nObj | 0.212 | nObj | 77.00 |
| 22 | 83 03 27 18:25 | 4.82 | | | | | nObj | 0.175 | nObj | 45.60 |
| 23 | 83 03 27 21:30 | 4.54 | | | | | nObj | 0.115 | nObj | 43.80 |
| 24 | 83 03 28 19:40 | 11.63 | | | | | nObj | 0.450 | nObj | 313.00 |
| 25 | 83 03 29 06:20 | | | | | | nObj | 0.410 | nObj | 156.00 |
| 26 | 83 03 29 08:40 | | | | | | nObj | 0.243 | nObj | 152.00 |
| 27 | 83 03 29 11:10 | | | | | | nObj | 0.300 | nObj | 130.00 |
| 28 | 83 03 29 14:35 | | | | | | nObj | 0.163 | nObj | 113.00 |
| 29 | 83 03 30 10:40 | 6.10 | | | | | nObj | 0.125 | nObj | 37.70 |
| 30 | 83 04 06 11:30 | 7.15 | | | | | nObj | 0.057 | nObj | 39.90 |
| 31 | 83 04 13 10:35 | 7.10 | | | | | nObj | 0.111 | nObj | 54.40 |
| 32 | 83 04 21 11:25 | 4.15 | | | | | nObj | 0.031 | nObj | |
| 33 | 83 04 28 11:00 | 2.72 | | | | | nObj | 0.031 | nObj | |
| No. of valid samples: | | | 27 | 1 | 11 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 33 | 0 | 29 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 87.88 |
| Average exceedance factor: | | | 1.27 | | | | | 10.00 | | 7.14 |

STATION #10 Hunter River & Steeles Ave

| Fecal | Coliform | BOD5 | NH3 | pH | Phosphates | Phosphorus | Residue | Residue | Partic. |
|-------|----------|--------|--------|----|------------|------------|---------|---------|---------|
| mg/s | #/100mL | mg/L O | mg/L N | | mg/L P | mg/L P | mg/L | mg/L | mg/L |

Geom. Mean

| | | | | | | | | | |
|----------------------------|----------------|-------|-----|------|-------|-------|---------|------|---------|
| 1 | 83 03 10 10:15 | 8.95 | 105 | nobj | 0.212 | nobj | 150.00 | nobj | 150.00 |
| 2 | 83 03 17 09:45 | 3.27 | | nobj | 0.052 | nobj | 25.70 | nobj | 25.70 |
| 3 | 83 03 18 17:30 | 3.40 | | nobj | 0.034 | nobj | 83.50 | nobj | 83.50 |
| 4 | 83 03 19 03:00 | 5.41 | | nobj | 0.272 | nobj | 1114.00 | nobj | 1114.00 |
| 5 | 83 03 19 10:20 | 14.64 | | nobj | 1.070 | nobj | 642.00 | nobj | 642.00 |
| 6 | 83 03 19 16:00 | 17.12 | | nobj | 0.680 | nobj | 730.00 | nobj | 730.00 |
| 7 | 83 03 19 23:45 | 16.20 | | nobj | 0.935 | nobj | 618.00 | nobj | 618.00 |
| 8 | 83 03 20 07:10 | 15.19 | | nobj | 0.940 | nobj | 375.00 | nobj | 375.00 |
| 9 | 83 03 20 16:15 | 12.61 | | nobj | 0.610 | nobj | 221.00 | nobj | 221.00 |
| 10 | 83 03 20 23:50 | 10.05 | | nobj | 0.318 | nobj | 164.00 | nobj | 164.00 |
| 11 | 83 03 21 07:00 | 8.25 | | nobj | 0.165 | nobj | 79.70 | nobj | 79.70 |
| 12 | 83 03 21 16:00 | 7.10 | | nobj | 0.113 | nobj | 27.90 | nobj | 27.90 |
| 13 | 83 03 23 11:00 | 4.44 | | nobj | 0.057 | nobj | 40.70 | nobj | 40.70 |
| 14 | 83 03 25 11:15 | 3.18 | | nobj | 0.084 | nobj | 45.70 | nobj | 45.70 |
| 15 | 83 03 25 14:55 | | | nobj | 0.064 | nobj | 46.70 | nobj | 46.70 |
| 16 | 83 03 25 17:35 | 3.33 | | nobj | 0.060 | nobj | 65.00 | nobj | 65.00 |
| 17 | 83 03 25 22:10 | 3.61 | | nobj | 0.067 | nobj | 37.80 | nobj | 37.80 |
| 18 | 83 03 26 01:00 | | | nobj | 0.059 | nobj | 47.10 | nobj | 47.10 |
| 19 | 83 03 26 05:40 | 3.22 | | nobj | 0.037 | nobj | 36.10 | nobj | 36.10 |
| 20 | 83 03 27 06:00 | 3.98 | | nobj | 0.095 | nobj | 35.40 | nobj | 35.40 |
| 21 | 83 03 27 14:35 | 4.28 | | nobj | 0.069 | nobj | 35.60 | nobj | 35.60 |
| 22 | 83 03 27 20:30 | 4.26 | | nobj | 0.058 | nobj | 82.70 | nobj | 82.70 |
| 23 | 83 03 27 23:20 | 4.16 | | nobj | 0.058 | nobj | 180.00 | nobj | 180.00 |
| 24 | 83 03 28 12:20 | 5.35 | | nobj | 0.160 | nobj | 110.00 | nobj | 110.00 |
| 25 | 83 03 29 00:00 | 11.52 | | nobj | 0.242 | nobj | 90.10 | nobj | 90.10 |
| 26 | 83 03 29 09:00 | 7.54 | | nobj | 0.197 | nobj | 33.60 | nobj | 33.60 |
| 27 | 83 03 29 14:00 | 7.54 | | nobj | 0.125 | nobj | 59.90 | nobj | 59.90 |
| 28 | 83 03 29 17:35 | 7.63 | | nobj | 0.200 | nobj | | | |
| 29 | 83 03 30 08:45 | 5.78 | | nobj | 0.074 | nobj | | | |
| 30 | 83 04 06 10:15 | 6.79 | | nobj | 0.099 | nobj | | | |
| 31 | 83 04 13 09:25 | 6.83 | | nobj | 0.049 | nobj | | | |
| 32 | 83 04 21 09:40 | 3.95 | | nobj | 0.037 | nobj | | | |
| 33 | 83 04 28 10:00 | 3.00 | | nobj | | nobj | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | 27 | 1 | 1 | 18 | 33 | 33 | 0 | 0 | 33 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 29 |
| % of samples exceeding: | | | | | | 96.97 | | | 87.88 |
| Average exceedance factor: | 1.05 | | | 0.00 | 0.00 | 7.59 | | | 7.40 |

STATION #11 Black Creek @ Lawrence Ave

| | | | Fecal | BOD5 | NH3 | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|------------|----------|--------|--------|------|-------------|------------|-------------|---------|
| # | Date and Time | FLOW | Coliform | mg/L O | mg/L N | | Filt, react | Unf, total | Filt, react | Partic. |
| | | m3/s | #/100mL | | | | mg/L P | mg/L P | mg/L | mg/L |
| | | Geom. Mean | | | | | | | | |
| 1 | 83 03 10 16:00 | 0.58 | 574 | | | | n0bj | 0.163 | n0bj | |
| 2 | 83 03 17 13:05 | 0.20 | | | | | n0bj | 0.043 | n0bj | |
| 3 | 83 03 18 16:00 | 0.21 | | | | | n0bj | 0.082 | n0bj | |
| 4 | 83 03 19 00:15 | 2.08 | | | | | n0bj | 0.810 | n0bj | 278.00 |
| 5 | 83 03 19 07:40 | 4.71 | | | | | n0bj | 0.515 | n0bj | 393.00 |
| 6 | 83 03 19 19:10 | 2.44 | | | | | n0bj | 0.320 | n0bj | 268.00 |
| 7 | 83 03 20 03:05 | 1.64 | | | | | n0bj | 0.455 | n0bj | 156.00 |
| 8 | 83 03 20 10:25 | 1.11 | | | | | n0bj | 0.155 | n0bj | 80.80 |
| 9 | 83 03 20 19:30 | 0.80 | | | | | n0bj | 0.095 | n0bj | 42.50 |
| 10 | 83 03 21 03:45 | 0.62 | | | | | n0bj | 0.063 | n0bj | 25.80 |
| 11 | 83 03 21 10:35 | 0.53 | | | | | n0bj | 0.112 | n0bj | |
| 12 | 83 03 21 21:30 | 0.84 | | | | | n0bj | 0.100 | n0bj | |
| 13 | 83 03 23 15:40 | 0.59 | | | | | n0bj | 0.095 | n0bj | 43.70 |
| 14 | 83 03 25 09:50 | 0.25 | | | | | n0bj | 0.040 | n0bj | |
| 15 | 83 03 25 16:25 | 0.41 | | | | | n0bj | 0.098 | n0bj | |
| 16 | 83 03 25 17:30 | | | | | | n0bj | 0.097 | n0bj | |
| 17 | 83 03 26 03:05 | 0.28 | | | | | n0bj | 0.049 | n0bj | |
| 18 | 83 03 26 11:00 | 0.23 | | | | | n0bj | 0.032 | n0bj | |
| 19 | 83 03 27 03:10 | 0.32 | | | | | n0bj | 0.084 | n0bj | |
| 20 | 83 03 27 10:25 | 0.31 | | | | | n0bj | 0.085 | n0bj | 26.30 |
| 21 | 83 03 27 12:30 | 1.05 | | | | | n0bj | 0.500 | n0bj | 174.00 |
| 22 | 83 03 27 16:15 | 1.64 | | | | | n0bj | 0.427 | n0bj | 124.00 |
| 23 | 83 03 27 18:20 | 1.08 | | | | | n0bj | 0.482 | n0bj | 73.90 |
| 24 | 83 03 28 07:15 | 1.02 | | | | | n0bj | 0.161 | n0bj | 35.10 |
| 25 | 83 03 28 13:30 | 1.46 | | | | | n0bj | 0.210 | n0bj | 77.50 |
| 26 | 83 03 28 19:45 | 1.53 | | | | | n0bj | 0.180 | n0bj | 80.00 |
| 27 | 83 03 29 00:50 | 1.43 | | | | | n0bj | 0.487 | n0bj | 88.40 |
| 28 | 83 03 29 11:30 | 0.73 | | | | | n0bj | 0.107 | n0bj | 35.40 |
| 29 | 83 03 30 11:50 | 0.45 | | | | | n0bj | 0.042 | n0bj | |
| 30 | 83 04 06 12:00 | 0.45 | | | | | n0bj | 0.083 | n0bj | |
| 31 | 83 04 13 11:50 | 0.44 | | | | | n0bj | 0.046 | n0bj | |
| 32 | 83 04 21 13:40 | 0.30 | | | | | n0bj | 0.072 | n0bj | |
| 33 | 83 04 28 12:40 | 0.17 | | | | | n0bj | | n0bj | |
| No. of valid samples: | | | 27 | 1 | 22 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 32 | 0 | 17 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 96.97 | | 51.52 |
| Average exceedance factor: | | | 5.74 | | | | | 6.55 | | 4.71 |

STATION #12 Cook Creek @ Weston Rd

| # | Date and Time | FLOW m3/s | Fecal | BOD5 mg/L O | NH3 mg/L N | pH | Phosphates | Phosphorus | Residue | Residue |
|----------------------------|----------------|--------------|-----------------------|----------------|---------------|------|------------|------------|----------|---------|
| | | | Coliform | | | | Filt.react | Unf,total | Filtres. | Partic. |
| | | | #/100mL Geom. Mean | | | | mg/L P | mg/L P | mg/L | mg/L |
| 1 | 83 03 10 11:00 | 0.10 | 603 | | | | n0bj | 0.087 | n0bj | |
| 2 | 83 03 17 10:30 | 0.07 | | | | | n0bj | 0.144 | n0bj | |
| 3 | 83 03 18 17:00 | 0.10 | | | | | n0bj | 6.600 | n0bj | 107.00 |
| 4 | 83 03 19 01:35 | 0.88 | | | | | n0bj | 0.283 | n0bj | 77.10 |
| 5 | 83 03 19 10:00 | 1.72 | | | | | n0bj | 0.330 | n0bj | 196.00 |
| 6 | 83 03 19 16:45 | 0.43 | | | | | n0bj | 0.280 | n0bj | 71.60 |
| 7 | 83 03 20 00:30 | 0.20 | | | | | n0bj | 0.115 | n0bj | 43.90 |
| 8 | 83 03 20 07:40 | 0.11 | | | | | n0bj | 0.075 | n0bj | 31.40 |
| 9 | 83 03 20 16:55 | 0.10 | | | | | n0bj | 0.390 | n0bj | |
| 10 | 83 03 21 00:30 | 0.08 | | | | | n0bj | 0.117 | n0bj | |
| 11 | 83 03 21 07:40 | 0.07 | | | | | n0bj | 0.058 | n0bj | |
| 12 | 83 03 21 16:50 | 0.09 | | | | | n0bj | 0.420 | n0bj | |
| 13 | 83 03 23 17:10 | 0.19 | | | | | n0bj | 2.200 | n0bj | 169.00 |
| 14 | 83 03 25 10:45 | 0.08 | | | | | n0bj | 3.900 | n0bj | 31.30 |
| 15 | 83 03 25 15:30 | 0.16 | | | | | n0bj | 0.237 | n0bj | 35.20 |
| 16 | 83 03 25 16:50 | | | | | | n0bj | 0.460 | n0bj | 113.00 |
| 17 | 83 03 25 22:40 | 0.08 | | | | | n0bj | 0.100 | n0bj | |
| 18 | 83 03 26 01:30 | | | | | | n0bj | 0.149 | n0bj | |
| 19 | 83 03 26 12:00 | 0.07 | | | | | n0bj | 0.114 | n0bj | |
| 20 | 83 03 27 10:55 | 0.18 | | | | | n0bj | 0.300 | n0bj | 100.00 |
| 21 | 83 03 27 12:00 | 0.55 | | | | | n0bj | 0.467 | n0bj | 168.00 |
| 22 | 83 03 27 16:15 | 0.79 | | | | | n0bj | 0.200 | n0bj | 68.10 |
| 23 | 83 03 27 18:55 | 0.46 | | | | | n0bj | 0.139 | n0bj | 30.30 |
| 24 | 83 03 28 06:10 | 0.24 | | | | | n0bj | 0.058 | n0bj | |
| 25 | 83 03 28 14:05 | 0.59 | | | | | n0bj | 0.113 | n0bj | |
| 26 | 83 03 28 16:30 | 0.47 | | | | | n0bj | 0.225 | n0bj | 149.00 |
| 27 | 83 03 28 20:25 | 0.29 | | | | | n0bj | 0.247 | n0bj | 98.50 |
| 28 | 83 03 29 07:00 | 0.09 | | | | | n0bj | 0.212 | n0bj | 43.80 |
| 29 | 83 03 30 09:20 | 0.08 | | | | | n0bj | 0.078 | n0bj | |
| 30 | 83 04 06 10:45 | 0.09 | | | | | n0bj | 0.052 | n0bj | |
| 31 | 83 04 13 09:55 | 0.09 | | | | | n0bj | 0.066 | n0bj | |
| 32 | 83 04 21 10:35 | 0.07 | | | | | n0bj | 0.071 | n0bj | |
| 33 | 83 04 28 10:20 | 0.08 | | | | | n0bj | 0.720 | n0bj | |
| <hr/> | | | | | | | | | | |
| No. of valid samples: | | | 27 | 1 | 21 | 33 | 0 | 33 | 0 | 33 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 33 | 0 | 17 |
| % of samples exceeding: | | | | 0.00 | 0.00 | 0.00 | | 100.00 | | 51.52 |
| Average exceedance factor: | | | 6.03 | | | | | 19.20 | | 3.61 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 SPRING RUNOFF - MARCH 10 to APRIL 28, 1983
 Inorganic Parameters (Metals)

STATION #3 Humber River @ Bloor St

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 17:00 | 3.82 | 0.0007 | | 0.015 | | | | |
| 2 | 83 03 17 14:20 | 2.35 | 0.0006 | | 0.009 | | | | |
| 3 | 83 03 18 22:45 | 7.87 | 0.0020 | | 0.059 | | | 0.230 | 0.250 |
| 4 | 83 03 19 06:20 | 8.22 | 0.0009 | | 0.027 | | | 0.059 | 0.100 |
| 5 | 83 03 19 13:05 | 14.10 | 0.0020 | | 0.038 | | 0.028 | 0.064 | 0.110 |
| 6 | 83 03 19 21:00 | 14.17 | 0.0020 | | 0.034 | | 0.028 | 0.031 | 0.073 |
| 7 | 83 03 20 05:00 | 10.98 | 0.0010 | | 0.029 | | | | 0.051 |
| 8 | 83 03 20 11:35 | 8.12 | 0.0010 | | 0.024 | | | | 0.038 |
| 9 | 83 03 20 20:50 | 4.75 | 0.0010 | | 0.022 | | | | 0.034 |
| 10 | 83 03 21 05:00 | 6.45 | 0.0008 | | 0.020 | | | | |
| 11 | 83 03 21 12:00 | 4.24 | 0.0007 | | 0.017 | | | | |
| 12 | 83 03 21 22:55 | 3.62 | 0.0004 | | 0.012 | | | | |
| 13 | 83 03 23 17:50 | 1.62 | | | 0.013 | | | | |
| 14 | 83 03 25 14:50 | 2.00 | 0.0006 | | 0.012 | | | | |
| 15 | 83 03 25 18:25 | | 0.0005 | | 0.010 | | | | |
| 16 | 83 03 25 22:45 | 2.65 | 0.0006 | | 0.018 | | | | |
| 17 | 83 03 26 04:00 | 2.30 | 0.0020 | | 0.022 | | | 0.048 | |
| 18 | 83 03 26 09:10 | 4.35 | | | 0.011 | | | | |
| 19 | 83 03 27 04:15 | 5.63 | 0.0006 | | 0.014 | | | | |
| 20 | 83 03 27 08:50 | 3.30 | 0.0005 | | 0.012 | | | | |
| 21 | 83 03 27 14:50 | 5.06 | 0.0006 | | 0.018 | | | 0.033 | 0.035 |
| 23 | 83 03 27 22:15 | 4.34 | 0.0006 | | 0.020 | | | 0.042 | 0.052 |
| 25 | 83 03 29 07:30 | 7.23 | | | 0.009 | | | | |
| 27 | 83 03 29 12:55 | 4.79 | 0.0006 | | 0.015 | | | | |
| 29 | 83 03 30 12:50 | 3.96 | 0.0004 | | 0.013 | | | | |
| 30 | 83 04 06 13:45 | 5.55 | 0.0004 | | 0.022 | | | | |
| 31 | 83 04 13 12:50 | 4.24 | 0.0004 | | 0.019 | | | | |
| 32 | 83 04 21 15:20 | 3.00 | 0.0006 | | 0.024 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | | | 25 | 0 | 28 | 0 | 2 | 7 | 9 |
| % of samples exceeding: | | | 89.29 | 0.00 | 100.00 | | 7.14 | 25.00 | 32.14 |
| Average exceedance factor: | | | 4.30 | | 3.99 | | 1.12 | 2.90 | 2.75 |

STATION #4 Minico Creek @ mouth

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 17:30 | 1.51 | 0.0007 | | 0.013 | | | | |
| 2 | 83 03 17 15:00 | 0.30 | 0.0006 | | 0.013 | | | | |
| 3 | 83 03 18 23:05 | 9.31 | 0.0030 | | 0.070 | | | 0.250 | 0.410 |
| 4 | 83 03 19 06:50 | 12.51 | 0.0020 | | 0.042 | | 0.026 | 0.092 | 0.200 |
| 5 | 83 03 19 13:35 | 9.57 | 0.0020 | | 0.043 | | 0.038 | 0.061 | 0.190 |
| 6 | 83 03 19 21:30 | 5.15 | 0.0010 | | 0.024 | | | | 0.093 |
| 7 | 83 03 20 05:30 | 3.11 | 0.0006 | | 0.016 | | | | 0.046 |
| 8 | 83 03 20 12:05 | 2.21 | 0.0007 | | 0.014 | | | | 0.035 |
| 9 | 83 03 20 21:20 | 1.67 | 0.0006 | | 0.014 | | | | 0.030 |
| 10 | 83 03 21 05:35 | 1.37 | 0.0006 | | 0.016 | | | | |
| 11 | 83 03 21 12:50 | 1.19 | 0.0007 | | 0.023 | | | | |
| 12 | 83 03 21 23:15 | 0.87 | 0.0009 | | 0.016 | | | | |
| 13 | 83 03 23 18:25 | 1.20 | 0.0004 | | 0.024 | | | | 0.040 |
| 14 | 83 03 25 15:30 | 0.87 | 0.0009 | | 0.018 | | | | 0.032 |
| 15 | 83 03 25 18:45 | | 0.0007 | | 0.016 | | | | 0.032 |
| 16 | 83 03 25 23:10 | 0.99 | 0.0006 | | 0.019 | | | | 0.030 |
| 17 | 83 03 26 04:20 | 0.90 | | | 0.022 | | | | 0.032 |
| 18 | 83 03 26 09:35 | 0.70 | 0.0002 | | 0.023 | | | | 0.038 |
| 19 | 83 03 27 04:40 | 1.11 | 0.0008 | | 0.017 | | | | 0.039 |
| 20 | 83 03 27 09:20 | 0.88 | 0.0007 | | 0.020 | | | | 0.050 |
| 21 | 83 03 27 15:15 | 3.28 | 0.0010 | | 0.039 | | | 0.110 | 0.160 |
| 23 | 83 03 27 22:50 | 3.14 | 0.0010 | | 0.024 | | | 0.058 | 0.120 |
| 25 | 83 03 28 22:45 | 5.23 | 0.0010 | | 0.027 | | | 0.036 | 0.091 |
| 28 | 83 03 29 08:20 | 1.75 | 0.0005 | | 0.015 | | | | 0.048 |
| 30 | 83 03 30 13:15 | 1.01 | 0.0005 | | 0.020 | | | | |
| 31 | 83 04 06 14:10 | 0.91 | 0.0005 | | 0.015 | | | | |
| 32 | 83 04 13 13:10 | 0.64 | 0.0007 | | 0.034 | | | | |
| 33 | 83 04 21 16:00 | 0.47 | 0.0008 | | 0.025 | | | | |

| | | | | | | | |
|----------------------------|-------|------|--------|---|------|-------|-------|
| No. of valid samples: | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | 27 | 0 | 28 | 0 | 2 | 6 | 19 |
| % of samples exceeding: | 96.43 | 0.00 | 100.00 | | 7.14 | 21.43 | 67.86 |
| Average exceedance factor: | 4.39 | | 4.73 | | 1.28 | 4.05 | 3.01 |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 15:15 | 0.78 | 0.0006 | | 0.018 | | | | 0.030 |
| 2 | 83 03 17 13:50 | 0.27 | 0.0005 | | 0.025 | | | | |
| 3 | 83 03 18 16:30 | 0.38 | 0.0007 | | 0.024 | | | | 0.055 |
| 4 | 83 03 19 00:45 | 3.82 | 0.0010 | | 0.037 | | | 0.140 | 0.160 |
| 5 | 83 03 19 08:05 | 9.65 | 0.0020 | | 0.047 | | 0.027 | 0.160 | 0.200 |
| 6 | 83 03 19 20:20 | 3.55 | 0.0008 | | 0.025 | | | 0.040 | 0.077 |
| 7 | 83 03 20 04:30 | 2.17 | 0.0006 | | 0.029 | | | | 0.070 |
| 8 | 83 03 20 11:15 | 1.55 | 0.0007 | | 0.019 | | | | 0.038 |
| 9 | 83 03 20 20:15 | 1.05 | 0.0006 | | 0.018 | | | | 0.030 |
| 10 | 83 03 21 04:40 | 0.80 | 0.0006 | | 0.018 | | | | |
| 11 | 83 03 21 11:35 | 0.73 | 0.0007 | | 0.018 | | | | 0.034 |
| 12 | 83 03 21 22:10 | 0.57 | 0.0008 | | 0.019 | | | | 0.034 |
| 13 | 83 03 23 16:10 | 0.84 | 0.0030 | | 0.033 | | | 0.092 | 0.058 |
| 14 | 83 03 25 10:15 | 0.30 | 0.0006 | | 0.021 | | | | 0.047 |
| 15 | 83 03 25 16:05 | 0.52 | 0.0007 | | 0.024 | | | 0.031 | 0.053 |
| 16 | 83 03 25 18:00 | 0.51 | 0.0007 | | 0.022 | | | | 0.050 |
| 17 | 83 03 26 03:35 | 0.36 | | | 0.028 | | | 0.031 | 0.051 |
| 18 | 83 03 26 10:20 | 0.29 | 0.0009 | | 0.022 | | | | 0.038 |
| 19 | 83 03 27 03:40 | 0.41 | 0.0008 | | 0.020 | | | | 0.055 |
| 20 | 83 03 27 09:55 | 0.41 | 0.0007 | | 0.024 | | | | 0.048 |
| 21 | 83 03 27 12:45 | 1.75 | 0.0010 | | 0.042 | | | 0.120 | 0.130 |
| 23 | 83 03 27 18:50 | 2.22 | 0.0020 | | 0.039 | | | 0.170 | 0.170 |
| 27 | 83 03 28 13:55 | 2.46 | 0.0008 | | 0.032 | | | 0.076 | 0.110 |
| 29 | 83 03 29 01:15 | 1.81 | 0.0006 | | 0.020 | | | 0.026 | 0.053 |
| 31 | 83 03 30 12:25 | 0.63 | 0.0004 | | 0.022 | | | | |
| 32 | 83 04 06 13:25 | 0.60 | 0.0005 | | 0.030 | | | | |
| 33 | 83 04 13 12:20 | 0.73 | 0.0003 | | 0.029 | | | | 0.054 |
| 34 | 83 04 21 14:50 | 0.52 | 0.0007 | | 0.038 | | | | 0.038 |

| | | | | | | | |
|----------------------------|-------|------|--------|---|------|-------|-------|
| No. of valid samples: | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | 27 | 0 | 28 | 0 | 1 | 10 | 24 |
| % of samples exceeding: | 96.43 | 0.00 | 100.00 | | 3.57 | 35.71 | 85.71 |
| Average exceedance factor: | 4.31 | | 5.31 | | 1.08 | 3.54 | 2.34 |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 14:45 | 20.76 | 0.0006 | | 0.019 | | | | |
| 2 | 83 03 17 13:30 | 5.09 | 0.0010 | | 0.012 | | | | |
| 3 | 83 03 18 22:15 | 16.48 | 0.0010 | | 0.032 | | | 0.100 | 0.120 |
| 4 | 83 03 19 05:40 | 20.57 | 0.0009 | | 0.022 | | | 0.040 | 0.082 |
| 5 | 83 03 19 12:30 | 44.02 | 0.0020 | | 0.037 | | 0.030 | 0.047 | 0.100 |
| 6 | 83 03 19 19:50 | 64.36 | 0.0020 | | 0.034 | | 0.031 | 0.027 | 0.070 |
| 7 | 83 03 20 04:10 | 40.10 | 0.0006 | | 0.027 | | | | 0.049 |
| 8 | 83 03 20 10:55 | 32.77 | 0.0010 | | 0.023 | | | | 0.036 |
| 9 | 83 03 20 20:00 | 25.56 | 0.0007 | | 0.022 | | | | 0.030 |
| 10 | 83 03 21 04:15 | 18.70 | 0.0005 | | 0.018 | | | | |
| 11 | 83 03 21 11:05 | 15.21 | 0.0008 | | 0.016 | | | | |
| 12 | 83 03 21 21:55 | 12.04 | 0.0007 | | 0.013 | | | | |
| 13 | 83 03 23 16:35 | 7.26 | 0.0010 | | 0.014 | | | | |
| 14 | 83 03 25 14:15 | 5.05 | 0.0006 | | 0.013 | | | | |
| 15 | 83 03 25 17:50 | | 0.0005 | | 0.011 | | | | |
| 16 | 83 03 25 22:25 | 5.45 | 0.0008 | | 0.015 | | | | |
| 17 | 83 03 26 03:20 | 5.71 | | | 0.012 | | | | |
| 18 | 83 03 26 08:25 | 4.88 | | | 0.013 | | | | |
| 19 | 83 03 27 03:30 | 5.90 | 0.0006 | | 0.012 | | | | |
| 20 | 83 03 27 08:20 | 6.49 | 0.0004 | | 0.013 | | | | |
| 21 | 83 03 27 14:20 | 8.02 | 0.0009 | | 0.020 | | | 0.048 | 0.046 |
| 23 | 83 03 27 21:45 | 8.74 | 0.0007 | | 0.017 | | | 0.030 | 0.040 |
| 27 | 83 03 29 07:05 | 21.04 | 0.0005 | | 0.014 | | | | |
| 31 | 83 03 30 12:10 | 11.30 | 0.0005 | | 0.010 | | | | |
| 32 | 83 04 06 13:10 | 12.27 | 0.0006 | | 0.024 | | | | |
| 33 | 83 04 13 12:10 | 11.67 | 0.0005 | | 0.024 | | | | |
| 34 | 83 04 21 14:30 | 5.90 | 0.0005 | | 0.019 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 27 | 27 | 27 | 0 | 27 | 27 | 27 |
| No. of exceedances: | | | 25 | 0 | 27 | 0 | 2 | 6 | 9 |
| % of samples exceeding: | | | 92.59 | 0.00 | 100.00 | | 7.41 | 22.22 | 33.33 |
| Average exceedance factor: | | | 3.98 | | 3.75 | | 1.22 | 1.95 | 2.12 |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 14:20 | 19.77 | 0.0006 | | 0.016 | | | | |
| 2 | 83 03 17 12:10 | 7.67 | | | 0.011 | | | | |
| 3 | 83 03 18 21:45 | 14.61 | 0.0008 | | 0.026 | | | 0.081 | 0.140 |
| 4 | 83 03 19 05:15 | 20.16 | 0.0008 | | 0.023 | | | 0.038 | 0.100 |
| 5 | 83 03 19 12:05 | 46.92 | 0.0010 | | 0.037 | | 0.028 | 0.036 | 0.087 |
| 6 | 83 03 19 18:50 | 72.70 | 0.0010 | | 0.032 | | 0.027 | | 0.067 |
| 7 | 83 03 20 03:25 | 51.47 | 0.0010 | | 0.031 | | 0.026 | | 0.050 |
| 8 | 83 03 20 08:45 | 41.48 | 0.0010 | | 0.023 | | | | 0.036 |
| 9 | 83 03 20 18:50 | 28.66 | 0.0008 | | 0.021 | | | | |
| 10 | 83 03 21 03:25 | 20.96 | 0.0007 | | 0.017 | | | | |
| 11 | 83 03 21 10:10 | 17.11 | 0.0005 | | 0.013 | | | | |
| 12 | 83 03 21 21:00 | 13.93 | 0.0006 | | 0.013 | | | | |
| 13 | 83 03 23 14:15 | 9.94 | 0.0009 | | 0.014 | | | | |
| 14 | 83 03 25 13:00 | 7.37 | 0.0006 | | 0.011 | | | | |
| 15 | 83 03 25 16:45 | | 0.0006 | | 0.012 | | | | |
| 16 | 83 03 25 22:00 | 8.02 | 0.0005 | | 0.011 | | | | |
| 17 | 83 03 25 23:55 | | 0.0005 | | 0.011 | | | | |
| 18 | 83 03 26 02:50 | 7.67 | | | 0.011 | | | | |
| 19 | 83 03 26 07:25 | 7.59 | | | 0.009 | | | | |
| 20 | 83 03 27 07:35 | 9.25 | 0.0004 | | 0.013 | | | | |
| 21 | 83 03 27 14:00 | 11.02 | 0.0006 | | 0.017 | | | | |
| 24 | 83 03 27 20:45 | 11.96 | 0.0007 | | 0.019 | | | 0.033 | 0.044 |
| 28 | 83 03 29 12:20 | 19.38 | 0.0004 | | 0.017 | | | | |
| 30 | 83 03 30 11:35 | 12.93 | 0.0004 | | 0.012 | | | | |
| 31 | 83 04 06 12:55 | 13.59 | 0.0003 | | 0.010 | | | | |
| 32 | 83 04 13 11:05 | 13.93 | 0.0005 | | 0.019 | | | | |
| 33 | 83 04 21 14:05 | 8.57 | 0.0004 | | 0.010 | | | | |
| 34 | 83 04 28 12:15 | 6.74 | 0.0004 | | 0.017 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | | | 25 | 0 | 28 | 0 | 3 | 4 | 7 |
| % of samples exceeding: | | | 89.29 | 0.00 | 100.00 | | 10.71 | 14.29 | 25.00 |
| Average exceedance factor: | | | 3.20 | | 3.40 | | 1.08 | 1.88 | 2.50 |

STATION #8 W Humber R @ Main Humber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 11:35 | 7.70 | 0.0005 | | 0.012 | | | | |
| 2 | 83 03 17 11:00 | 1.94 | | | 0.010 | | | | |
| 3 | 83 03 18 18:20 | 2.17 | 0.0006 | | 0.016 | | | 0.047 | 0.052 |
| 4 | 83 03 19 03:55 | 5.80 | 0.0007 | | 0.022 | | | 0.042 | 0.074 |
| 5 | 83 03 19 11:00 | 15.24 | 0.0007 | | 0.022 | | | | 0.052 |
| 6 | 83 03 19 17:20 | 30.00 | 0.0010 | | 0.022 | | | | 0.045 |
| 7 | 83 03 20 01:00 | 21.93 | 0.0008 | | 0.023 | | | | 0.036 |
| 8 | 83 03 20 08:10 | 17.19 | 0.0009 | | 0.019 | | | | 0.031 |
| 9 | 83 03 20 17:30 | 10.49 | 0.0007 | | 0.017 | | | | |
| 10 | 83 03 21 01:10 | 7.57 | 0.0005 | | 0.014 | | | | |
| 11 | 83 03 21 08:10 | 5.17 | 0.0007 | | 0.014 | | | 0.045 | |
| 12 | 83 03 21 17:25 | 5.38 | 0.0007 | | 0.014 | | | | |
| 13 | 83 03 23 13:00 | 2.11 | 0.0009 | | 0.014 | | | | |
| 14 | 83 03 25 12:00 | 0.77 | 0.0006 | | 0.011 | | | | |
| 15 | 83 03 25 15:55 | | 0.0005 | | 0.012 | | | | |
| 16 | 83 03 25 18:15 | 0.96 | 0.0006 | | 0.013 | | | | |
| 17 | 83 03 25 23:05 | | 0.0006 | | 0.012 | | | | |
| 18 | 83 03 26 01:50 | 1.04 | | | 0.012 | | | | |
| 19 | 83 03 26 06:15 | 1.02 | 0.0002 | | 0.018 | | | | |
| 20 | 83 03 27 06:30 | 0.98 | 0.0004 | | 0.014 | | | 0.027 | |
| 21 | 83 03 27 15:10 | 1.68 | 0.0006 | | 0.022 | | | 0.055 | 0.050 |
| 23 | 83 03 27 21:05 | 1.52 | 0.0007 | | 0.012 | | | | |
| 25 | 83 03 29 05:25 | | 0.0004 | | 0.013 | | | | |
| 27 | 83 03 29 10:45 | | 0.0005 | | 0.014 | | | | |
| 29 | 83 03 30 10:15 | 2.70 | 0.0003 | | 0.013 | | | | |
| 30 | 83 04 06 11:10 | 2.10 | 0.0005 | | 0.019 | | | 0.084 | |
| 31 | 83 04 13 10:15 | 1.70 | 0.0005 | | 0.018 | | | | |
| 32 | 83 04 21 11:05 | 0.77 | 0.0020 | | 0.024 | | | | |
| 33 | 83 04 28 10:45 | 0.44 | 0.0010 | | 0.023 | | | | |

| | | | | | | | |
|----------------------------|-------|------|--------|---|------|-------|-------|
| No. of valid samples: | 29 | 29 | 29 | 0 | 29 | 28 | 29 |
| No. of exceedances: | 27 | 0 | 29 | 0 | 0 | 6 | 7 |
| % of samples exceeding: | 93.10 | 0.00 | 100.00 | | 0.00 | 21.43 | 24.14 |
| Average exceedance factor: | 3.35 | | 3.23 | | | 2.00 | 1.62 |

STATION #9 Main Huber R @ W Huber R

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 12:15 | 7.95 | 0.0006 | | 0.018 | | | | |
| 2 | 83 03 17 11:30 | 1.85 | | | 0.010 | | | | |
| 3 | 83 03 18 18:45 | 3.52 | 0.0009 | | 0.033 | | | 0.120 | 0.180 |
| 4 | 83 03 19 04:25 | 6.96 | 0.0009 | | 0.022 | | | 0.026 | 0.048 |
| 5 | 83 03 19 11:30 | 16.04 | 0.0020 | | 0.045 | | 0.041 | 0.034 | 0.093 |
| 6 | 83 03 19 17:45 | 7.97 | 0.0010 | | 0.034 | | 0.027 | | 0.064 |
| 7 | 83 03 20 01:45 | 12.04 | 0.0010 | | 0.035 | | 0.025 | | 0.065 |
| 8 | 83 03 20 08:45 | 17.04 | 0.0010 | | 0.029 | | | | 0.042 |
| 9 | 83 03 20 18:00 | 13.68 | 0.0008 | | 0.024 | | | | 0.032 |
| 10 | 83 03 21 01:30 | 8.96 | 0.0003 | | 0.017 | | | | |
| 11 | 83 03 21 08:25 | 7.31 | 0.0006 | | 0.014 | | | | |
| 12 | 83 03 21 17:55 | 4.36 | 0.0006 | | 0.016 | | | | |
| 13 | 83 03 23 13:30 | 3.22 | 0.0006 | | 0.012 | | | | |
| 14 | 83 03 25 12:20 | 3.21 | 0.0004 | | 0.011 | | | | |
| 15 | 83 03 25 16:15 | | 0.0006 | | 0.012 | | | | |
| 16 | 83 03 25 18:30 | 3.64 | 0.0005 | | 0.012 | | | | |
| 17 | 83 03 25 23:25 | | 0.0005 | | 0.011 | | | | |
| 18 | 83 03 26 02:10 | 3.42 | | | 0.010 | | | | |
| 19 | 83 03 26 06:30 | 3.34 | | | 0.010 | | | | |
| 20 | 83 03 27 07:00 | 3.98 | 0.0005 | | 13.000 | | | | |
| 21 | 83 03 27 15:35 | 5.41 | 0.0007 | | 0.024 | | | 0.056 | 0.068 |
| 23 | 83 03 27 21:30 | 4.54 | 0.0007 | | 0.013 | | | | |
| 25 | 83 03 29 06:20 | | 0.0005 | | 0.016 | | | | |
| 27 | 83 03 29 11:10 | | 0.0006 | | 0.018 | | | | |
| 29 | 83 03 30 10:40 | 6.10 | 0.0004 | | 0.014 | | | | |
| 30 | 83 04 06 11:30 | 7.15 | 0.0004 | | 0.012 | | | | |
| 31 | 83 04 13 10:35 | 7.10 | 0.0004 | | 0.017 | | | | |
| 32 | 83 04 21 11:25 | 4.15 | 0.0004 | | 0.015 | | | | |
| 33 | 83 04 28 11:00 | 2.72 | 0.0004 | | 0.200 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 29 | 29 | 29 | 0 | 29 | 29 | 29 |
| No. of exceedances: | | | 26 | 0 | 29 | 0 | 3 | 4 | 8 |
| % of samples exceeding: | | | 89.66 | 0.00 | 100.00 | | 10.34 | 13.79 | 27.59 |
| Average exceedance factor: | | | 3.33 | | 94.51 | | 1.24 | 2.36 | 2.47 |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 10:15 | 8.95 | 0.0006 | | 0.019 | | | | |
| 2 | 83 03 17 09:45 | 3.27 | | | 0.012 | | | | |
| 3 | 83 03 18 17:30 | 3.40 | 0.0004 | | 0.009 | | | | |
| 4 | 83 03 19 03:00 | 5.41 | 0.0007 | | 0.019 | | | | |
| 5 | 83 03 19 10:20 | 14.64 | 0.0020 | | 0.040 | | 0.036 | 0.026 | 0.076 |
| 6 | 83 03 19 16:00 | 17.12 | 0.0010 | | 0.033 | | 0.028 | | 0.055 |
| 7 | 83 03 19 23:45 | 16.20 | 0.0010 | | 0.036 | | 0.026 | | 0.054 |
| 8 | 83 03 20 07:10 | 15.19 | 0.0010 | | 0.029 | | | | 0.038 |
| 9 | 83 03 20 16:15 | 12.61 | 0.0007 | | 0.021 | | | | |
| 10 | 83 03 20 23:50 | 10.05 | 0.0004 | | 0.018 | | | | |
| 11 | 83 03 21 07:00 | 8.25 | 0.0004 | | 0.015 | | | | |
| 12 | 83 03 21 16:00 | 7.10 | 0.0006 | | 0.014 | | | | |
| 13 | 83 03 23 11:00 | 4.44 | 0.0004 | | 0.010 | | | | |
| 14 | 83 03 25 11:15 | 3.18 | 0.0005 | | 0.012 | | | | |
| 15 | 83 03 25 14:55 | | 0.0004 | | 0.012 | | | | |
| 16 | 83 03 25 17:35 | 3.33 | 0.0003 | | 0.011 | | | | |
| 17 | 83 03 25 22:10 | | 0.0005 | | 0.012 | | | | |
| 18 | 83 03 26 01:00 | 3.61 | | | 0.010 | | | | |
| 19 | 83 03 26 05:40 | 3.22 | | | 0.010 | | | | |
| 20 | 83 03 27 06:00 | 3.98 | 0.0005 | | 0.013 | | | | |
| 21 | 83 03 27 14:35 | 4.28 | 0.0005 | | 0.012 | | | | |
| 23 | 83 03 27 23:20 | 4.16 | 0.0003 | | 0.014 | | | | |
| 26 | 83 03 29 09:00 | 7.54 | 0.0020 | | 0.020 | | | 0.039 | |
| 29 | 83 03 30 08:45 | 5.78 | 0.0003 | | 0.013 | | | | |
| 30 | 83 04 06 10:15 | 6.79 | 0.0008 | | 0.010 | | | | |
| 31 | 83 04 13 09:25 | 6.83 | 0.0003 | | 0.030 | | | | 0.046 |
| 32 | 83 04 21 09:40 | 3.95 | 0.0006 | | 0.014 | | | | |
| 33 | 83 04 28 10:00 | 3.00 | 0.0004 | | 0.022 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | | | 25 | 0 | 28 | 0 | 3 | 2 | 5 |
| % of samples exceeding: | | | 89.29 | 0.00 | 100.00 | | 10.71 | 7.14 | 17.86 |
| Average exceedance factor: | | | 3.32 | | 3.50 | | 1.20 | 1.30 | 1.79 |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|--------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 16:00 | 0.58 | 0.0006 | | 0.015 | | | | |
| 2 | 83 03 17 13:05 | 0.20 | | | 0.016 | | | | |
| 3 | 83 03 18 16:00 | 0.21 | 0.0005 | | 0.015 | | | | |
| 4 | 83 03 19 00:15 | 2.08 | 0.0010 | | 0.037 | | 0.026 | 0.120 | 0.150 |
| 5 | 83 03 19 07:40 | 4.71 | 0.0010 | | 0.049 | | 0.031 | 0.160 | 0.210 |
| 6 | 83 03 19 19:10 | 2.44 | 0.0008 | | 0.027 | | | 0.030 | 0.038 |
| 7 | 83 03 20 03:05 | 1.64 | 0.0006 | | 0.023 | | | | 0.054 |
| 8 | 83 03 20 10:25 | 1.11 | 0.0006 | | 0.017 | | | | 0.032 |
| 9 | 83 03 20 19:30 | 0.80 | 0.0006 | | 0.020 | | | | 0.034 |
| 10 | 83 03 21 03:45 | 0.62 | 0.0006 | | 0.021 | | | | |
| 11 | 83 03 21 10:35 | 0.53 | 0.0007 | | 0.016 | | | | |
| 12 | 83 03 21 21:30 | 0.84 | | | 0.016 | | | | |
| 13 | 83 03 23 15:40 | 0.59 | 0.0005 | | 0.020 | | | 0.053 | 0.066 |
| 14 | 83 03 25 09:50 | 0.25 | 0.0007 | | 0.018 | | | | 0.036 |
| 15 | 83 03 25 16:25 | 0.41 | 0.0006 | | 0.021 | | | | 0.037 |
| 16 | 83 03 25 17:30 | | 0.0006 | | 0.021 | | | 0.028 | 0.070 |
| 17 | 83 03 26 03:05 | 0.28 | | | 0.021 | | | | 0.033 |
| 18 | 83 03 26 11:00 | 0.23 | 0.0009 | | 0.017 | | | | 0.036 |
| 19 | 83 03 27 03:10 | 0.32 | 0.0006 | | 0.016 | | | | 0.040 |
| 20 | 83 03 27 10:25 | 0.31 | 0.0010 | | 0.032 | | | 0.098 | 0.100 |
| 21 | 83 03 27 12:30 | 1.05 | 0.0030 | | 0.070 | | | 0.340 | 0.290 |
| 23 | 83 03 27 18:20 | 1.08 | 0.0009 | | 0.027 | | | 0.090 | 0.110 |
| 27 | 83 03 29 00:50 | 1.43 | 0.0006 | | 0.026 | | | 0.027 | 0.055 |
| 29 | 83 03 30 11:50 | 0.45 | 0.0006 | | 0.021 | | | | 0.036 |
| 30 | 83 04 06 12:00 | 0.45 | 0.0020 | | 0.034 | | | | |
| 31 | 83 04 13 11:50 | 0.44 | 0.0004 | | 0.025 | | | | |
| 32 | 83 04 21 13:40 | 0.30 | 0.0007 | | 0.025 | | | | |
| 33 | 83 04 28 12:40 | 0.17 | 0.0006 | | 0.024 | | | | |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 28 | 28 | 28 | 0 | 28 | 28 | 28 |
| No. of exceedances: | | | 25 | 0 | 28 | 0 | 2 | 9 | 18 |
| % of samples exceeding: | | | 89.29 | 0.00 | 100.00 | | 7.14 | 32.14 | 64.29 |
| Average exceedance factor: | | | 4.14 | | 4.93 | | 1.14 | 4.20 | 2.74 |

STATION #12 Cook Creek @ Weston Rd

| # | Date and Time | FLOW m ³ /s | Cadmium mg/L Cd | Chromium mg/L Cr | Copper mg/L Cu | Mercury ug/L Hg | Nickel mg/L Ni | Lead mg/L Pb | Zinc mg/L Zn |
|----------------------------|----------------|---------------------------|--------------------|---------------------|-------------------|--------------------|-------------------|-----------------|-----------------|
| 1 | 83 03 10 11:00 | 0.10 | 0.0008 | 0.220 | 0.022 | | 0.033 | | 0.075 |
| 2 | 83 03 17 10:30 | 0.07 | 0.0007 | | 0.020 | | | | 0.067 |
| 3 | 83 03 18 17:00 | 0.10 | 0.0010 | 0.900 | 0.036 | | | 0.110 | 0.190 |
| 4 | 83 03 19 01:35 | 0.88 | 0.0010 | 0.230 | 0.028 | | | 0.047 | 0.120 |
| 5 | 83 03 19 10:00 | 1.72 | 0.0010 | 0.160 | 0.048 | | 0.027 | 0.100 | 0.190 |
| 6 | 83 03 19 16:45 | 0.43 | 0.0010 | 0.120 | 0.074 | | 0.029 | 0.120 | 0.250 |
| 7 | 83 03 20 00:30 | 0.20 | 0.0006 | 0.160 | 0.020 | | | | 0.110 |
| 8 | 83 03 20 07:40 | 0.11 | 0.0005 | | 0.016 | | | | 0.079 |
| 9 | 83 03 20 16:55 | 0.10 | 0.0006 | 0.160 | 0.018 | | | | 0.065 |
| 10 | 83 03 21 00:30 | 0.08 | 0.0006 | | 0.016 | | | | 0.084 |
| 11 | 83 03 21 07:40 | 0.07 | 0.0006 | | 0.015 | | | | 0.080 |
| 12 | 83 03 21 16:50 | 0.09 | 0.0006 | | 0.017 | | | | 0.063 |
| 13 | 83 03 23 17:10 | 0.19 | 0.0020 | 0.730 | 0.090 | | 0.035 | 0.170 | 0.290 |
| 14 | 83 03 25 10:45 | 0.08 | 0.0008 | 0.500 | 0.019 | | | | 0.079 |
| 15 | 83 03 25 15:30 | 0.16 | 0.0008 | | 0.028 | | | 0.035 | 0.091 |
| 16 | 83 03 25 16:50 | | 0.0010 | | 0.042 | | | 0.054 | 0.130 |
| 17 | 83 03 25 22:40 | 0.08 | 0.0008 | | 0.021 | | | | 0.075 |
| 18 | 83 03 26 01:30 | | 0.0006 | | 0.035 | | | | 0.070 |
| 19 | 83 03 26 12:00 | 0.07 | | | 0.019 | | | | 0.059 |
| 20 | 83 03 27 10:55 | 0.18 | 0.0020 | | 0.058 | | | 0.230 | 0.220 |
| 21 | 83 03 27 12:00 | 0.55 | 0.0020 | | 0.056 | | | 0.220 | 0.260 |
| 22 | 83 03 27 16:15 | 0.79 | 0.0010 | 0.110 | 0.037 | | | 0.077 | 0.130 |
| 29 | 83 03 30 09:20 | 0.08 | 0.0007 | | 0.029 | | | | 0.074 |
| 30 | 83 04 06 10:45 | 0.09 | 0.0004 | 0.120 | 0.021 | | | | 0.073 |
| 31 | 83 04 13 09:55 | 0.09 | 0.0006 | | 0.030 | | | | 0.082 |
| 32 | 83 04 21 10:35 | 0.07 | 0.0005 | 0.150 | 0.025 | | | | 0.076 |
| 33 | 83 04 28 10:20 | 0.08 | 0.0002 | | 0.036 | | | | 0.140 |
| <hr/> | | | | | | | | | |
| No. of valid samples: | | | 27 | 27 | 27 | 0 | 27 | 27 | 27 |
| No. of exceedances: | | | 26 | 12 | 27 | 0 | 4 | 10 | 27 |
| % of samples exceeding: | | | 96.30 | 44.44 | 100.00 | | 14.81 | 37.04 | 100.00 |
| Average exceedance factor: | | | 4.31 | 2.97 | 6.49 | | 1.24 | 4.65 | 3.98 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
 WATER QUALITY DATA - EXCEEDANCE VALUES
 SPRING RUNOFF - MARCH 10 to APRIL 28, 1993
 Pesticides and Organic Parameters

STATION #3 Humber River @ Bloor St

| # | Date and Time | 10 FLOW m3/s | 11 P1ALDR ng/L | 12 P1BHCA ng/L | 13 P1BHCB ng/L | 14 P1CHLA ng/L | 15 P1CHLG ng/L | 16 P1DIEL ng/L | 17 P1DMBT ng/L | 18 P1END1 ng/L | 19 P1END2 ng/L | 20 P1ENDR ng/L | 21 P1END3 ng/L |
|----------------------------|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 83 03 10 17:00 | 3.82 | | n0bJ | n0bJ | | | | | | | | |
| 2 | 83 03 17 14:20 | 2.35 | | n0bJ | n0bJ | | | | | | | | |
| 3 | 83 03 18 22:45 | 7.87 | | n0bJ | n0bJ | | | | | | | | |
| 4 | 83 03 19 06:20 | 8.22 | | n0bJ | n0bJ | | | | | | | | |
| 6 | 83 03 19 21:00 | 14.17 | | n0bJ | n0bJ | | | | | | | | |
| 7 | 83 03 20 05:00 | 10.98 | | n0bJ | n0bJ | | | | | 10 | | | |
| 9 | 83 03 20 20:50 | 4.75 | | n0bJ | n0bJ | | | | | | | | |
| 10 | 83 03 21 05:00 | 6.45 | | n0bJ | n0bJ | | | | | | | | |
| 13 | 83 03 23 17:50 | 1.62 | | n0bJ | n0bJ | | | | | | | | |
| 14 | 83 03 25 14:50 | 2.00 | | n0bJ | n0bJ | | | | | | | | |
| 18 | 83 03 26 09:10 | 4.35 | | n0bJ | n0bJ | | | | | | | | |
| 20 | 83 03 27 08:50 | 3.30 | | n0bJ | n0bJ | | | | | | | | |
| 23 | 83 03 27 22:15 | 4.34 | | n0bJ | n0bJ | | | | | | | | |
| 25 | 83 03 29 07:30 | 7.23 | | n0bJ | n0bJ | | | | | | | | |
| 29 | 83 03 30 12:50 | 3.96 | | n0bJ | n0bJ | | | | | | | | |
| 30 | 83 04 06 13:45 | 5.55 | | n0bJ | n0bJ | | | | | | | | |
| 31 | 83 04 13 12:50 | 4.24 | | n0bJ | n0bJ | | | | | | | | |
| 32 | 83 04 21 15:20 | 3.00 | | n0bJ | n0bJ | | | | | | | | |
| 33 | 83 04 28 13:30 | 2.25 | | n0bJ | n0bJ | | | | | | | | |
| No. of valid samples: | | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| No. of exceedances: | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | 0.00 | 0.00 | | | | 100.00 | | | |
| Average exceedance factor: | | | | | | | | | | 3.33 | | | |

[illegible][illegible]

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 10 P1ALDR ns/L | 11 P1BHCA ns/L | 12 P1BHCB ns/L | 13 P1BHCG ns/L | 14 P1CHLA ns/L | 15 P1CHLG ns/L | 16 P1DIEL ns/L | 17 P1DMDT ns/L | 18 P1END1 ns/L | 19 P1END2 ns/L | 20 P1ENDR ns/L | 21 P1ENDS ns/L |
|----------------------------|----------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 83 03 10 15:15 | 0.78 | | n0bj | n0bj | | | | | | | | | |
| 2 | 83 03 17 13:50 | 0.27 | | n0bj | n0bj | | | | 6 | | | | | |
| 3 | 83 03 18 16:30 | 0.38 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 4 | 83 03 19 00:45 | 3.82 | | n0bj | n0bj | | | | | | | | | |
| 6 | 83 03 19 20:20 | 3.55 | | n0bj | n0bj | | | | 2 | | 20 | | | |
| 7 | 83 03 20 04:30 | 2.17 | | n0bj | n0bj | | | | | | | | | |
| 9 | 83 03 20 20:15 | 1.05 | | n0bj | n0bj | | | | | | | | | |
| 10 | 83 03 21 04:40 | 0.90 | | n0bj | n0bj | | | | | | | | | |
| 13 | 83 03 23 16:10 | 0.84 | | n0bj | n0bj | | | | | | | | | |
| 14 | 83 03 25 10:15 | 0.30 | | n0bj | n0bj | | | | | | | | | |
| 18 | 83 03 26 10:20 | 0.29 | | n0bj | n0bj | | | | | | | | | |
| 20 | 83 03 27 09:55 | 0.41 | | n0bj | n0bj | | | | | | | | | |
| 23 | 83 03 27 18:50 | 2.22 | | n0bj | n0bj | | | | | | | | | |
| 27 | 83 03 28 13:55 | 2.46 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 31 | 83 03 30 12:25 | 0.63 | | n0bj | n0bj | | | | | | | | | |
| 32 | 83 04 06 13:25 | 0.60 | | n0bj | n0bj | | | | | | | | | |
| 33 | 83 04 13 12:20 | 0.73 | | n0bj | n0bj | | | | | | | | | |
| 34 | 83 04 21 14:50 | 0.52 | | n0bj | n0bj | | | | | | | | | |
| 35 | 83 04 28 13:10 | 0.35 | | n0bj | n0bj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | | | 100.00 | | 100.00 | | | |
| Average exceedance factor: | | | | | | | | | 4.00 | | 6.67 | | | |

[illegible]

No. of exceedances:

% of samples exceeding:

Average exceedance factor:

[illegible][illegible]

STATION #8 W Hubber R @ Main Hubber R

| | | STATION 10 - W. HANCOCK R. - 1.001 - 1000000 | | | | | | | | | | | | |
|----------------------------|----------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | |
| | | FLOW | P1ALDR | P1B4CA | P1B4CB | P1B4CG | P1CHLA | P1CHLG | P1DIEL | P1DMDT | P1END1 | P1END2 | P1ENDR | P1ENDS |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 83 03 10 11:35 | 7.70 | | n0bj | n0bj | | | | | | | | | |
| 2 | 83 03 17 11:00 | 1.94 | | n0bj | n0bj | | | | | | | | | |
| 3 | 83 03 18 18:20 | 2.17 | | n0bj | n0bj | | | | | | | | | |
| 4 | 83 03 19 03:55 | 5.80 | | n0bj | n0bj | | | | | | | | | |
| 6 | 83 03 19 17:20 | 30.00 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 7 | 83 03 20 01:00 | 21.93 | | n0bj | n0bj | | | | | | | | | |
| 9 | 83 03 20 17:30 | 10.49 | | n0bj | n0bj | | | | 4 | | | | | |
| 10 | 83 03 21 01:10 | 7.57 | | n0bj | n0bj | | | | | | | | | |
| 13 | 83 03 23 13:00 | 2.11 | | n0bj | n0bj | | | | | | | | | |
| 14 | 83 03 25 12:00 | 0.77 | | n0bj | n0bj | | | | | | | | | |
| 19 | 83 03 26 06:15 | 1.02 | | n0bj | n0bj | | | | | | | | | |
| 20 | 83 03 27 06:30 | 0.98 | | n0bj | n0bj | | | | | | | | | |
| 23 | 83 03 27 21:05 | 1.52 | | n0bj | n0bj | | | | | | | | | |
| 25 | 83 03 29 05:25 | | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 29 | 83 03 30 10:15 | 2.70 | | n0bj | n0bj | | | | | | | | | |
| 30 | 83 04 06 11:10 | 2.10 | | n0bj | n0bj | | | | | | | | | |
| 31 | 83 04 13 10:15 | 1.70 | | n0bj | n0bj | | | | | | | | | |
| 32 | 83 04 21 11:05 | 0.77 | | n0bj | n0bj | | | | | | | | | |
| 33 | 83 04 28 10:45 | 0.44 | | n0bj | n0bj | | | | | | | | | |
| No. of valid samples: | | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 0.00 | | | 100.00 | | | | | |
| Average exceedance factor: | | | | | | | | | 4.00 | | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | | PIALDR ns/L | PIBHCA ns/L | PIBHCB ns/L | PIBHCG ns/L | PICHLA ns/L | PICHLG ns/L | PIDIEL ns/L | PIDMDT ns/L | PIEND1 ns/L | PIEND2 ns/L | PIENDR ns/L | PIENDS ns/L |
| 1 | 83 03 10 12:15 | 7.95 | | n0bj | n0bj | | | | | | | | | |
| 2 | 83 03 17 11:30 | 1.85 | | n0bj | n0bj | | | | | | | | | |
| 3 | 83 03 18 18:45 | 3.52 | | n0bj | n0bj | | | | | | | | | |
| 4 | 83 03 19 04:25 | 6.96 | | n0bj | n0bj | | | | | | | | | |
| 6 | 83 03 19 17:45 | 7.97 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 7 | 83 03 20 01:45 | 12.04 | | n0bj | n0bj | | | | | | | | | |
| 9 | 83 03 20 18:00 | 13.68 | | n0bj | n0bj | | | | 4 | | | | | |
| 10 | 83 03 21 01:30 | 8.96 | | n0bj | n0bj | | | | | | | | | |
| 13 | 83 03 23 13:30 | 3.22 | | n0bj | n0bj | | | | | | | | | |
| 14 | 83 03 25 12:20 | 3.21 | | n0bj | n0bj | | | | | | | | | |
| 19 | 83 03 26 06:30 | 3.34 | | n0bj | n0bj | | | | | | | | | |
| 20 | 83 03 27 07:00 | 3.98 | | n0bj | n0bj | | | | | | | | | |
| 23 | 83 03 27 21:30 | 4.54 | | n0bj | n0bj | | | | | | | | | |
| 25 | 83 03 29 06:20 | | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 29 | 83 03 30 10:40 | 6.10 | | n0bj | n0bj | | | | | | | | | |
| 30 | 83 04 06 11:30 | 7.15 | | n0bj | n0bj | | | | | | | | | |
| 31 | 83 04 13 10:35 | 7.10 | | n0bj | n0bj | | | | | | | | | |
| 32 | 83 04 21 11:25 | 4.15 | | n0bj | n0bj | | | | | | | | | |
| 33 | 83 04 28 11:00 | 2.72 | | n0bj | n0bj | | | | | | | | | |

| | | | | | | | | | | | | | | |
|----------------------------|---|---|---|------|---|---|--------|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | | | 100.00 | | | | | | | |
| Average exceedance factor: | | | | | | | 4.00 | | | | | | | |

[illegible][illegible]

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | | P1ALDR ns/L | P1BHCA ns/L | P1BHCB ns/L | P1BHCG ns/L | P1CHLA ns/L | P1CHLG ns/L | P1DIEL ns/L | P1DMDT ns/L | P1END1 ns/L | P1END2 ns/L | P1ENDR ns/L | P1ENDS ns/L |
| 1 | 83 03 10 16:00 | 0.58 | | n0bj | n0bj | | | | | | | | | |
| 2 | 83 03 17 13:05 | 0.20 | | n0bj | n0bj | | | | | | | | | |
| 3 | 83 03 18 16:00 | 0.21 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 4 | 83 03 19 00:15 | 2.08 | | n0bj | n0bj | | | | | | | | | |
| 6 | 83 03 19 19:10 | 2.44 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 7 | 83 03 20 03:05 | 1.64 | | n0bj | n0bj | | | | | | | | | |
| 9 | 83 03 20 19:30 | 0.80 | | n0bj | n0bj | | | | | | | | | |
| 10 | 83 03 21 03:45 | 0.62 | | n0bj | n0bj | | | | | | | | | |
| 13 | 83 03 23 15:40 | 0.59 | | n0bj | n0bj | | | | | | | | | |
| 14 | 83 03 25 09:50 | 0.25 | | n0bj | n0bj | | | | | | | | | |
| 18 | 83 03 26 11:00 | 0.23 | | n0bj | n0bj | | | | | | 10 | | | |
| 20 | 83 03 27 10:25 | 0.31 | | n0bj | n0bj | | | | | | | | | |
| 23 | 83 03 27 18:20 | 1.08 | | n0bj | n0bj | | | n0bj | | | | n0bj | | n0bj |
| 25 | 83 03 28 13:30 | 1.46 | | n0bj | n0bj | | | | | | | | | |
| 29 | 83 03 30 11:50 | 0.45 | | n0bj | n0bj | | | | | | | | | |
| 30 | 83 04 06 12:00 | 0.45 | | n0bj | n0bj | | | | | | | | | |
| 31 | 83 04 13 11:50 | 0.44 | | n0bj | n0bj | | | | | | | | | |
| 32 | 83 04 21 13:40 | 0.30 | | n0bj | n0bj | | | | | | | | | |
| 33 | 83 04 28 12:40 | 0.17 | | n0bj | n0bj | | | | | | | | | |

| | | | | | | | | | | | | |
|----------------------------|---|---|---|------|---|---|---|------|--------|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | 0.00 | | | | 0.00 | 100.00 | | | |
| Average exceedance factor: | | | | | | | | | 3.33 | | | |

[illegible]

| | | | | | | | | | | | | |
|----------------------------|------|---|---|---|---|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 0.00 | | | | | | | | | | | |
| Average exceedance factor: | | | | | | | | | | | | |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY
WATER QUALITY DATA - EXCEEDANCE VALUES
SPRING RUNOFF - MARCH 10 to APRIL 28, 1983
Pesticides and Organic Parameters

| STATION #3 Humber River @ Bloor St | | | | | | | | | | | | | | |
|------------------------------------|----------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | P3245T | P324D | P324DB |
| # | Date and Time | m ³ /s | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L | ng/L |
| 1 | 83 03 10 17:00 | 3.82 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 14:20 | 2.35 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 22:45 | 7.87 | | | | n0bj | n0bj | | n0bj | | 5P54 | n0bj | | n0bj |
| 4 | 83 03 19 06:20 | 8.22 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 21:00 | 14.17 | | | | n0bj | n0bj | 190P54 | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 05:00 | 10.98 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 20:50 | 4.75 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 05:00 | 6.45 | | | | n0bj | n0bj | 205P54 | n0bj | 3 | | n0bj | | n0bj |
| 13 | 83 03 23 17:50 | 1.62 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 14:50 | 2.00 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 18 | 83 03 26 09:10 | 4.35 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 08:50 | 3.30 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 22:15 | 4.34 | | | | n0bj | n0bj | 25P54 | n0bj | | | n0bj | | n0bj |
| 25 | 83 03 29 07:30 | 7.23 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 29 | 83 03 30 12:50 | 3.96 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 04 06 13:45 | 5.55 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 13 12:50 | 4.24 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 21 15:20 | 3.00 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 28 13:30 | 2.25 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 1 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | 50.00 | 100.00 | | 0.00 | |
| Average exceedance factor: | | | | | | | | 136.67 | | 1.00 | 1.67 | | | |

STATION #4 Mimico Creek @ mouth

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----------------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 83 03 10 17:30 | 1.51 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 15:00 | 0.30 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 23:05 | 9.31 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 06:50 | 12.51 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 21:30 | 5.15 | | | | n0bj | n0bj | 145P54 | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 05:30 | 3.11 | | | | n0bj | n0bj | 45P54 | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 21:20 | 1.67 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 05:35 | 1.37 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 18:25 | 1.20 | | | | n0bj | n0bj | 70P60 | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 15:30 | 0.87 | | | | n0bj | n0bj | 70P60 | n0bj | | | n0bj | | n0bj |
| 18 | 83 03 26 09:35 | 0.70 | | | | n0bj | n0bj | 25P60 | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 09:20 | 0.88 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 22:50 | 3.14 | | | | n0bj | n0bj | 65P54 | n0bj | | | n0bj | | n0bj |
| 25 | 83 03 28 22:45 | 5.23 | | n0bj | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 03 30 13:15 | 1.01 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 06 14:10 | 0.91 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 13 13:10 | 0.64 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 21 16:00 | 0.47 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 34 | 83 04 28 13:50 | | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | 0.00 | | | | |
| Average exceedance factor: | | | | | | | | 70.00 | | | | | | |

STATION #5 Black Creek @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----------------------------|----------------|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ns/L | PIHEPT ns/L | PIHIRX ns/L | PIOCHL ns/L | PIOPDT ns/L | PIPCBT ns/L | PIPPDD ns/L | PIPPDE ns/L | PIPPDT ns/L | PJ245T ns/L | PJ24D ns/L | PJ24DB ns/L |
| 1 | 83 03 10 15:15 | 0.78 | | | | n0bj | n0bj | 250P54 | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 13:50 | 0.27 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 16:30 | 0.38 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 00:45 | 3.82 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 20:20 | 3.55 | | | | n0bj | n0bj | 285P54 | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 04:30 | 2.17 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 20:15 | 1.05 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 04:40 | 0.80 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 16:10 | 0.84 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 10:15 | 0.30 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 18 | 83 03 26 10:20 | 0.29 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 09:55 | 0.41 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 18:50 | 2.22 | | | | n0bj | n0bj | 25P54 | n0bj | | | n0bj | | n0bj |
| 27 | 83 03 28 13:55 | 2.46 | | n0bj | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 03 30 12:25 | 0.63 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 06 13:25 | 0.60 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 13 12:20 | 0.73 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 34 | 83 04 21 14:50 | 0.52 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 35 | 83 04 28 13:10 | 0.35 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | | | | 0.00 | |
| Average exceedance factor: | | | | | | | | 186.67 | | | | | | |

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P324ST ns/L | P324D ns/L | P324DB ns/L |
| 1 | 83 03 10 14:45 | 20.76 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 13:30 | 5.09 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 22:15 | 16.48 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 05:40 | 20.57 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 19:50 | 64.36 | 4P54 | | | n0bj | n0bj | 55P54 | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 04:10 | 40.10 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 20:00 | 25.56 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 04:15 | 18.70 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 16:35 | 7.26 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 14:15 | 5.05 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 18 | 83 03 26 08:25 | 4.88 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 08:20 | 6.49 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 21:45 | 8.74 | | | | n0bj | n0bj | 55P54 | n0bj | | | n0bj | | n0bj |
| 27 | 83 03 29 07:05 | 21.04 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 03 30 12:10 | 11.30 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 06 13:10 | 12.27 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 13 12:10 | 11.67 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 34 | 83 04 21 14:30 | 5.90 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 35 | 83 04 28 12:55 | 4.00 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

| | | | | | | | | | | | | | | |
|----------------------------|--------|---|---|---|---|---|--------|---|---|---|---|---|---|---|
| No. of valid samples: | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 100.00 | | | | | | 100.00 | | | | | | | |
| Average exceedance factor: | 4.00 | | | | | | 55.00 | | | | | | | |

STATION #7 Humber River @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1MIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDB ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 83 03 10 14:20 | 19.77 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 12:10 | 7.67 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 21:45 | 14.61 | 2 | | | n0bj | n0bj | 255P54 | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 05:15 | 20.16 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 18:50 | 72.70 | | | | n0bj | n0bj | 25P54 | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 03:25 | 51.47 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 18:50 | 28.66 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 03:25 | 20.96 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 14:15 | 9.94 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 13:00 | 7.37 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 19 | 83 03 26 07:25 | 7.59 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 07:35 | 9.25 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 24 | 83 03 27 20:45 | 11.96 | | | | n0bj | n0bj | 45P54 | n0bj | | | n0bj | | n0bj |
| 26 | 83 03 29 06:15 | 25.11 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 03 30 11:35 | 12.93 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 06 12:55 | 13.59 | | | | n0bj | n0bj | 40P60 | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 13 11:05 | 13.93 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 21 14:05 | 8.57 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 34 | 83 04 28 12:15 | 6.74 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

| | | | | | | | | | | | | | | |
|----------------------------|--------|---|---|---|---|--------|---|---|---|---|---|---|---|---|
| No. of valid samples: | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | 100.00 | | | | | 100.00 | | | | | | | | |
| Average exceedance factor: | 2.00 | | | | | 91.25 | | | | | | | | |

| STATION #8 W Humber R @ Main Humber R | | | | | | | | | | | | | | |
|---------------------------------------|----------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDB | P1PPDE | P1PPDT | P324ST | P324D | P324DB |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 83 03 10 11:35 | 7.70 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 11:00 | 1.94 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 18:20 | 2.17 | | | | n0bj | n0bj | 25P54 | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 03:55 | 5.80 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 17:20 | 30.00 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 01:00 | 21.93 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 17:30 | 10.49 | 2 | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 01:10 | 7.57 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 13:00 | 2.11 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 12:00 | 0.77 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 19 | 83 03 26 06:15 | 1.02 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 06:30 | 0.98 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 21:05 | 1.52 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 25 | 83 03 29 05:25 | | | n0bj | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 29 | 83 03 30 10:15 | 2.70 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 04 06 11:10 | 2.10 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 13 10:15 | 1.70 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 21 11:05 | 0.77 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 28 10:45 | 0.44 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| No. of valid samples: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | | | | | 100.00 | | 0.00 | | | 0.00 | |
| Average exceedance factor: | | | 2.00 | | | | | 25.00 | | | | | | |

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | P1HEPE ns/L | P1HEPT ns/L | P1NIRX ns/L | P1OCHL ns/L | P1OPDT ns/L | P1PCBT ns/L | P1PPDD ns/L | P1PPDE ns/L | P1PPDT ns/L | P3245T ns/L | P324D ns/L | P324DB ns/L |
| 1 | 83 03 10 12:15 | 7.95 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 11:30 | 1.85 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 18:45 | 3.52 | | | | n0bj | n0bj | 190P54 | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 04:25 | 6.96 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 17:45 | 7.97 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 01:45 | 12.04 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 18:00 | 13.68 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 01:30 | 8.96 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 13:30 | 3.22 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 12:20 | 3.21 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 19 | 83 03 26 06:30 | 3.34 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 07:00 | 3.98 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 21:30 | 4.54 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 25 | 83 03 29 06:20 | | | n0bj | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 29 | 83 03 30 10:40 | 6.10 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 04 06 11:30 | 7.15 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 13 10:35 | 7.10 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 21 11:25 | 4.15 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 28 11:00 | 2.72 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

| | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|--------|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 100.00 | | | | | | | |
| Average exceedance factor: | | | | | | 190.00 | | | | | | | |

STATION #10 Humber River @ Steeles Ave

| # | Date and Time | FLOW m3/s | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|----|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|
| | | | PIHEPE ng/L | PIHEPT ng/L | PIHIXR ng/L | PIOCHL ng/L | PIOPDT ng/L | PIPCBT ng/L | PIPPDD ng/L | PIPPDE ng/L | PIPPDT ng/L | P3245T ng/L | P324D ng/L | P324DB ng/L |
| 1 | 83 03 10 10:15 | 8.95 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 09:45 | 3.27 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 17:30 | 3.40 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 03:00 | 5.41 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 16:00 | 17.12 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 19 23:45 | 16.20 | | | | n0bj | n0bj | 25P54 | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 16:15 | 12.61 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 20 23:50 | 10.05 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 11:00 | 4.44 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 11:15 | 3.18 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 19 | 83 03 26 05:40 | 3.22 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 06:00 | 3.98 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 23:20 | 4.16 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 29 | 83 03 30 08:45 | 5.78 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 04 06 10:15 | 6.79 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 13 09:25 | 6.83 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 21 09:40 | 3.95 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 28 10:00 | 3.00 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |

| | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|--------|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | 100.00 | | | | | | | |
| Average exceedance factor: | | | | | | 25.00 | | | | | | | |

STATION #11 Black Creek @ Lawrence Ave

| # | Date and Time | FLOW m3/s | 22 P1HEPE ns/L | 23 P1HEPT ns/L | 24 P1MIRX ns/L | 25 P1OCHL ns/L | 26 P1OPDT ns/L | 27 P1PCBT ns/L | 28 P1PPDD ns/L | 29 P1PPDE ns/L | 30 P1PPDT ns/L | 31 P324ST ns/L | 32 P324D ns/L | 33 P324DB ns/L |
|----------------------------|----------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
| 1 | 83 03 10 16:00 | 0.58 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 2 | 83 03 17 13:05 | 0.20 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 3 | 83 03 18 16:00 | 0.21 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 4 | 83 03 19 00:15 | 2.08 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 6 | 83 03 19 19:10 | 2.44 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 7 | 83 03 20 03:05 | 1.64 | | | | n0bj | n0bj | 20P54 | n0bj | | | n0bj | | n0bj |
| 9 | 83 03 20 19:30 | 0.80 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 10 | 83 03 21 03:45 | 0.62 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 13 | 83 03 23 15:40 | 0.59 | | | | n0bj | n0bj | 65P54 | n0bj | | | n0bj | | n0bj |
| 14 | 83 03 25 09:50 | 0.25 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 18 | 83 03 26 11:00 | 0.23 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 20 | 83 03 27 10:25 | 0.31 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 23 | 83 03 27 18:20 | 1.08 | | | | n0bj | n0bj | 40P54 | n0bj | | | n0bj | | n0bj |
| 25 | 83 03 28 13:30 | 1.46 | | | | n0bj | n0bj | 45P54 | n0bj | | | n0bj | | n0bj |
| 29 | 83 03 30 11:50 | 0.45 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 30 | 83 04 06 12:00 | 0.45 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 31 | 83 04 13 11:50 | 0.44 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 32 | 83 04 21 13:40 | 0.30 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| 33 | 83 04 28 12:40 | 0.17 | | | | n0bj | n0bj | | n0bj | | | n0bj | | n0bj |
| No. of valid samples: | | | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | | | | | | 100.00 | | 0.00 | | | | |
| Average exceedance factor: | | | | | | | | 42.50 | | | | | | |

STATION #12 Cook Creek @ Weston Rd

| STATION #12 CUCK CREEK - WEST - RD | | | | | | | | | | | | | | |
|------------------------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
| | | FLOW | P1HEPE | P1HEPT | P1MIRX | P1OCHL | P1OPDT | P1PCBT | P1PPDD | P1PPDE | P1PPDT | PJ245T | PJ24D | PJ24DB |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 83 03 10 11:00 | 0.10 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 2 | 83 03 17 10:30 | 0.07 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 3 | 83 03 18 17:00 | 0.10 | | | | n0bJ | n0bJ | 55P54 | n0bJ | | | n0bJ | | n0bJ |
| 4 | 83 03 19 01:35 | 0.88 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 6 | 83 03 19 16:45 | 0.43 | | | | n0bJ | n0bJ | 45P54 | n0bJ | | | n0bJ | | n0bJ |
| 7 | 83 03 20 00:30 | 0.20 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 9 | 83 03 20 16:55 | 0.10 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 10 | 83 03 21 00:30 | 0.08 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 13 | 83 03 23 17:10 | 0.19 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 14 | 83 03 25 10:45 | 0.08 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 19 | 83 03 26 12:00 | 0.07 | 2 | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 20 | 83 03 27 10:55 | 0.18 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 22 | 83 03 27 16:15 | 0.79 | | | | n0bJ | n0bJ | 45P54 | n0bJ | | | n0bJ | | n0bJ |
| 25 | 83 03 28 14:05 | 0.59 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 29 | 83 03 30 09:20 | 0.08 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 30 | 83 04 06 10:45 | 0.09 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 31 | 83 04 13 09:55 | 0.09 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 32 | 83 04 21 10:35 | 0.07 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| 33 | 83 04 28 10:20 | 0.08 | | | | n0bJ | n0bJ | | n0bJ | | | n0bJ | | n0bJ |
| | | | | | | | | | | | | | | |
| No. of valid samples: | | | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 |
| No. of exceedances: | | | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| % of samples exceeding: | | | 100.00 | | | | | 100.00 | | 0.00 | | | | |
| Average exceedance factor: | | | 2.00 | | | | | 48.33 | | | | | | |

Pesticides and Organic Parameters

[illegible]

STATION #4 Mimico Creek @ mouth

| | | STATION 14 - RILEY CREEK @ BRIDGE | | | | | | | | | | | |
|----|----------------|-----------------------------------|--------|--------|--------|--------|-------|-------|--------|--------|-------|-------|--------|
| | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | |
| | | FLOW | P324DP | P3DICA | P3PICL | P3SILV | X2HCB | X3234 | X32345 | X32356 | X3245 | X3246 | X3PCPH |
| # | Date and Time | m3/s | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L | ns/L |
| 1 | 83 03 10 17:30 | 1.51 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 2 | 83 03 17 15:00 | 0.30 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 3 | 83 03 18 23:05 | 9.31 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 83 03 19 06:50 | 12.51 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 83 03 19 21:30 | 5.15 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 7 | 83 03 20 05:30 | 3.11 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 9 | 83 03 20 21:20 | 1.67 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 10 | 83 03 21 05:35 | 1.37 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 13 | 83 03 23 18:25 | 1.20 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 14 | 83 03 25 15:30 | 0.87 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 18 | 83 03 26 09:35 | 0.70 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 20 | 83 03 27 09:20 | 0.88 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 23 | 83 03 27 22:50 | 3.14 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 25 | 83 03 28 22:45 | 5.23 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 30 | 83 03 30 13:15 | 1.01 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 31 | 83 04 06 14:10 | 0.91 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 32 | 83 04 13 13:10 | 0.64 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 33 | 83 04 21 16:00 | 0.47 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 34 | 83 04 28 13:50 | | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples:

0

1

0

0

0

0

0

0

0

0

0

No. of exceedances:

0

0

0

0

0

0

0

0

0

0

0

% of samples exceeding:

0.00

Average exceedance factor:

[illegible]

No. of exceedances:

% of samples exceeding:

Average exceedance factor:

STATION #6 Humber River @ Scarlett Rd

| # | Date and Time | FLOW m ³ /s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|----|----------------|---------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 1 | 83 03 10 14:45 | 20.76 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 2 | 83 03 17 13:30 | 5.09 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 3 | 83 03 18 22:15 | 16.48 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 83 03 19 05:40 | 20.57 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 83 03 19 19:50 | 64.36 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 7 | 83 03 20 04:10 | 40.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 9 | 83 03 20 20:00 | 25.56 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 10 | 83 03 21 04:15 | 18.70 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 13 | 83 03 23 16:35 | 7.26 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 14 | 83 03 25 14:15 | 5.05 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 18 | 83 03 26 08:25 | 4.88 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 20 | 83 03 27 08:20 | 6.49 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 23 | 83 03 27 21:45 | 8.74 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 27 | 83 03 29 07:05 | 21.04 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 31 | 83 03 30 12:10 | 11.30 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 32 | 83 04 06 13:10 | 12.27 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 33 | 83 04 13 12:10 | 11.67 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 34 | 83 04 21 14:30 | 5.90 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 35 | 83 04 28 12:55 | 4.00 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

[illegible][illegible]

[illegible][illegible]

STATION #9 Main Humber R @ W Humber R

| # | Date and Time | FLOW m ³ /s | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|----|----------------|---------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | P324DP ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 1 | 83 03 10 12:15 | 7.95 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 2 | 83 03 17 11:30 | 1.85 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 3 | 83 03 18 18:45 | 3.52 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 83 03 19 04:25 | 6.96 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 83 03 19 17:45 | 7.97 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 7 | 83 03 20 01:45 | 12.04 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 9 | 83 03 20 18:00 | 13.68 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 10 | 83 03 21 01:30 | 8.96 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 13 | 83 03 23 13:30 | 3.22 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 14 | 83 03 25 12:20 | 3.21 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 19 | 83 03 26 06:30 | 3.34 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 20 | 83 03 27 07:00 | 3.98 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 23 | 83 03 27 21:30 | 4.54 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 25 | 83 03 29 06:20 | | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 29 | 83 03 30 10:40 | 6.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 30 | 83 04 06 11:30 | 7.15 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 31 | 83 04 13 10:35 | 7.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 32 | 83 04 21 11:25 | 4.15 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 33 | 83 04 28 11:00 | 2.72 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

No. of valid samples: 0 0 0 0 0 0 0 0 0 0 0 0 0

No. of exceedances: 0 0 0 0 0 0 0 0 0 0 0 0 0

% of samples exceeding:

Average exceedance factor:

[illegible]

No. of valid samples:

No. of exceedances:

% of samples exceeding:

Average exceedance factor:

[illegible]

No. of exceedances:

% of samples exceeding:

Average exceedance factor:

STATION #12 Cook Creek @ Weston Rd

| | | SAMPLE 112 CUCK STEER 1 WORKING | | | | | | | | | | | |
|----|----------------|---------------------------------|----------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| # | Date and Time | FLOW m3/s | P324DF ns/L | P3DICA ns/L | P3PICL ns/L | P3SILV ns/L | X2HCB ns/L | X3234 ns/L | X32345 ns/L | X32356 ns/L | X3245 ns/L | X3246 ns/L | X3PCPH ns/L |
| 1 | 83 03 10 11:00 | 0.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 2 | 83 03 17 10:30 | 0.07 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 3 | 83 03 18 17:00 | 0.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 4 | 83 03 19 01:35 | 0.98 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 6 | 83 03 19 16:45 | 0.43 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 7 | 83 03 20 00:30 | 0.20 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 9 | 83 03 20 16:55 | 0.10 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 10 | 83 03 21 00:30 | 0.08 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 13 | 83 03 23 17:10 | 0.19 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 14 | 83 03 25 10:45 | 0.08 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 19 | 83 03 26 12:00 | 0.07 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 20 | 83 03 27 10:55 | 0.18 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 22 | 83 03 27 16:15 | 0.79 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 25 | 83 03 28 14:05 | 0.59 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 29 | 83 03 30 09:20 | 0.08 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 30 | 83 04 06 10:45 | 0.09 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 31 | 83 04 13 09:55 | 0.09 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 32 | 83 04 21 10:35 | 0.07 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |
| 33 | 83 04 28 10:20 | 0.08 | n0bj | | n0bj | | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj | n0bj |

| | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of valid samples: | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of exceedances: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|-------------------------|------|--|--|--|--|--|--|--|--|--|--|--|
| % of samples exceeding: | 0.00 | | | | | | | | | | | |
|-------------------------|------|--|--|--|--|--|--|--|--|--|--|--|

| | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Average exceedance factor: | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|

APPENDIX J
CORRELATIONS BETWEEN PARAMETERS

APPENDIX J

CORRELATIONS BETWEEN PARAMETERS

Appendix J contains correlation matrices for the correlation analyses done on the TAWMS water quality data. The contents of Appendix J are as follows.

| <u>Table No.</u> | <u>Description</u> |
|------------------|---|
| J-1 | Correlations: Conventional Water Quality Parameters and Bacteria, Fall 1982 |
| J-2 | Correlations: Metals, Bacteria and Residue Particulate, Fall 1982 |
| J-3 | Correlations: Conventional Water Quality Parameters and Bacteria, Spring 1983 |
| J-4 | Correlations: Metals, Bacteria and Residue Particulate, Spring 1983 |
| J-5 | Correlations: Conventional Water Quality Parameters and Bacteria, Fall 1982 and Spring 1983 |
| J-6 | Correlations: Metals, Bacteria and Residue Particulate, Fall 1982 and Spring 1983 |

NOTES

Parameter numbers are used in Appendix J to identify water quality parameters. The meanings of these numbers are as follows.

| <u>Parameter No.</u> | <u>Parameter Name</u> |
|----------------------|-------------------------------|
| 1 | cadmium |
| 2 | chromium |
| 3 | copper |
| 5 | nickel |
| 6 | lead |
| 7 | Zn |
| 8 | fecal coliforms |
| 9 | fecal streptococci |
| 46 | total ammonia |
| 47 | pH |
| 48 | phosphorus, filtered reaction |
| 49 | phosphorus, unfiltered total |
| 50 | residue filtrate |
| 51 | residue particulate |
| 52 | flow |

Appendix J, Table 1
Correlations: Conventional
Water Quality Parameters
and Bacteria, Fall 1982

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #1

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-------------|------------|--------|--------|--------|--------|----------|----------|--------|
| 1 | 4400.0000 | 380.0000 | 0.0500 | 8.0800 | 0.0110 | 0.0260 | 827.0000 | 2.8500 | 0.1300 |
| 2 | 12300.0000 | 2000.0000 | 0.0140 | 8.2500 | 0.0185 | 0.0490 | 812.0000 | 6.9200 | 0.1500 |
| 3 | 1700.0000 | 9400.0000 | 0.0120 | 8.0500 | 0.0550 | 0.2200 | 643.0000 | 25.4000 | 0.2100 |
| 4 | 21000.0000 | 10000.0000 | 0.0060 | 7.6500 | 0.0460 | 0.2750 | 507.2000 | 38.4000 | 0.2600 |
| 5 | 4300.0000 | 2200.0000 | 0.0080 | 8.1000 | 0.0390 | 0.2550 | 647.0000 | 53.7000 | 0.5400 |
| 6 | 27000.0000 | 9700.0000 | 0.2040 | 7.4600 | 0.0510 | 0.3900 | 588.0000 | 140.0000 | 0.9500 |
| 7 | 400.0000 | 100.0000 | 0.0020 | 8.3200 | 0.0480 | 0.0830 | 419.0000 | 6.9000 | 0.3200 |
| 8 | 600.0000 | 500.0000 | 0.0020 | 8.2500 | 0.0490 | 0.0930 | 231.0000 | 7.2400 | 0.3300 |
| 9 | 900.0000 | 800.0000 | 0.0020 | 8.2400 | 0.0490 | 0.1100 | 436.0000 | 14.3000 | 0.4000 |
| 10 | 1500.0000 | 600.0000 | 0.0020 | 8.2700 | 0.0560 | 0.1150 | 445.0000 | 17.2000 | 0.5200 |
| 11 | 1000.0000 | 3000.0000 | 0.0060 | 8.4500 | 0.0650 | 0.1470 | 394.0000 | 33.2000 | 0.7400 |
| 12 | 2000.0000 | 2000.0000 | 0.0180 | 8.0400 | 0.0530 | 0.2300 | 343.0000 | 81.1000 | 1.4300 |
| 13 | 1000.0000 | 4000.0000 | 0.0040 | 7.9500 | 0.0630 | 0.4000 | 220.0000 | 150.0000 | 2.0400 |
| 14 | 1000.0000 | 3000.0000 | 0.0260 | 7.9300 | 0.0900 | 0.2800 | 159.0000 | 170.0000 | 2.0400 |
| 15 | 4100.0000 | 3000.0000 | 0.0340 | 7.7800 | 0.0530 | 0.1600 | 231.0000 | 66.9000 | 1.2700 |
| 16 | 230000.0000 | 31000.0000 | 0.0040 | 7.4500 | 0.1250 | 0.4250 | 246.0000 | 108.0000 | 1.3500 |
| 17 | 13300.0000 | 7900.0000 | 0.0100 | 7.8700 | 0.0570 | 0.2570 | 230.0000 | 59.8000 | 1.5000 |
| 18 | 13400.0000 | 3500.0000 | 0.0060 | 7.9000 | 0.0540 | 0.1770 | 248.0000 | 57.9000 | 0.9700 |
| 19 | 7400.0000 | 4900.0000 | 0.0040 | 7.9600 | 0.0415 | 0.1170 | 250.3000 | 26.6000 | 0.6000 |
| 20 | 5700.0000 | 4100.0000 | 0.0060 | 7.8400 | 0.0425 | 0.1000 | 277.0000 | 18.2000 | 0.5300 |
| 21 | 4100.0000 | 380.0000 | 0.0580 | 8.3900 | 0.0180 | 0.0450 | 682.0000 | 5.5600 | 0.1400 |
| 22 | 1060.0000 | 120.0000 | 0.0440 | 8.1400 | 0.0140 | 0.0320 | 850.0000 | 4.3800 | 0.1500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #1

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.9192 | -0.0163 | -0.5436 | 0.6611 | 0.4992 | -0.1765 | 0.2861 | 0.2139 |
| 9 | 0.9192 | 1.0000 | 0.0542 | -0.7052 | 0.7084 | 0.6812 | -0.2450 | 0.3988 | 0.2805 |
| 46 | -0.0163 | 0.0542 | 1.0000 | -0.3584 | -0.1759 | 0.2159 | 0.3451 | 0.3219 | -0.0292 |
| 47 | -0.5436 | -0.7052 | -0.3584 | 1.0000 | -0.4637 | -0.7108 | 0.3492 | -0.6031 | -0.4314 |
| 48 | 0.6611 | 0.7084 | -0.1759 | -0.4637 | 1.0000 | 0.7241 | -0.7052 | 0.6477 | 0.6734 |
| 49 | 0.4992 | 0.6812 | 0.2159 | -0.7108 | 0.7241 | 1.0000 | -0.4376 | 0.8553 | 0.6956 |
| 50 | -0.1765 | -0.2450 | 0.3451 | 0.3492 | -0.7052 | -0.4376 | 1.0000 | -0.4822 | -0.7085 |
| 51 | 0.2861 | 0.3988 | 0.3219 | -0.6031 | 0.6477 | 0.8553 | -0.4822 | 1.0000 | 0.8705 |
| 52 | 0.2139 | 0.2805 | -0.0292 | -0.4314 | 0.6734 | 0.6956 | -0.7085 | 0.8705 | 1.0000 |

T STATISTIC FOR 20 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 10.4358 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.0729 | 0.2429 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.8961 | -4.4482 | -1.7171 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 3.9400 | 4.4884 | -0.7992 | -2.3405 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 2.5762 | 4.1612 | 0.9888 | -4.5189 | 4.6958 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.8019 | -1.1302 | 1.6446 | 1.6664 | -4.4482 | -2.1764 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.3352 | 1.9449 | 1.5205 | -3.3814 | 3.8017 | 7.3820 | -2.4612 | 0.0000 | 0.0000 |
| 52 | 0.9790 | 1.3068 | -0.1305 | -2.1385 | 4.0733 | 4.3296 | -4.4893 | 7.9086 | 0.0000 |

T 0.05[20] = 2.086

T 0.01[20] = 2.845

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #2

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-------------|------------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 3900.0000 | 1400.0000 | 1.0000 | 7.8000 | 0.0820 | 0.1950 | 638.0000 | 9.6700 | 1.8200 |
| 2 | 1900.0000 | 400.0000 | 0.0320 | 8.3800 | 0.0730 | 0.1900 | 640.0000 | 10.1000 | 4.2500 |
| 3 | 1500.0000 | 200.0000 | 1.6100 | 7.9100 | 0.0790 | 0.1950 | 641.0000 | 7.9200 | 5.5600 |
| 4 | 2300.0000 | 400.0000 | 0.0140 | 8.2900 | 0.0900 | 0.1800 | 632.0000 | 16.7000 | 12.9600 |
| 5 | 73000.0000 | 34000.0000 | 0.0180 | 8.0000 | 0.0920 | 0.3730 | 537.0000 | 33.0000 | 12.5000 |
| 6 | 210000.0000 | 9900.0000 | 0.0140 | 8.9100 | 0.1450 | 0.7300 | 591.0000 | 43.5000 | 11.1700 |
| 7 | 18000.0000 | 7700.0000 | 0.0100 | 7.9900 | 0.1350 | 0.6950 | 633.0000 | 96.5000 | 10.9600 |
| 8 | 55000.0000 | 19000.0000 | 0.0120 | 7.4100 | 0.1650 | 0.9200 | 578.0000 | 63.7000 | 10.0000 |
| 9 | 2800.0000 | 3900.0000 | 0.0040 | 8.3200 | 0.0580 | 0.4000 | 345.0000 | 211.0000 | 9.2200 |
| 10 | 4000.0000 | 5100.0000 | 0.0040 | 7.6900 | 0.0980 | 0.3620 | 363.0000 | 143.0000 | 20.6700 |
| 11 | 11300.0000 | 8100.0000 | 0.0040 | 8.1200 | 0.1200 | 0.3750 | 370.0000 | 145.0000 | 25.2000 |
| 12 | 6200.0000 | 4100.0000 | 0.0040 | 8.1800 | 0.0650 | 0.3300 | 278.0000 | 177.0000 | 25.4100 |
| 13 | 2400.0000 | 3600.0000 | 0.0040 | 8.2500 | 0.0710 | 0.3520 | 255.0000 | 205.0000 | 22.3000 |
| 14 | 1800.0000 | 1500.0000 | 0.0040 | 8.1400 | 0.0640 | 0.4000 | 236.0000 | 237.0000 | 21.7000 |
| 15 | 3700.0000 | 2800.0000 | 0.0040 | 8.2800 | 0.0630 | 0.3800 | 262.0000 | 212.0000 | 20.2500 |
| 16 | 2700.0000 | 2400.0000 | 0.0060 | 8.1400 | 0.0670 | 0.3520 | 323.0000 | 213.0000 | 17.2100 |
| 17 | 39000.0000 | 21000.0000 | 0.0040 | 7.9400 | 0.0785 | 0.6550 | 284.0000 | 302.0000 | 13.4100 |
| 18 | 190000.0000 | 32000.0000 | 0.0040 | 7.6500 | 0.1250 | 0.5550 | 281.0000 | 217.0000 | 10.8100 |
| 19 | 25000.0000 | 15000.0000 | 0.0100 | 7.9800 | 0.0715 | 0.4050 | 257.0000 | 209.0000 | 9.5000 |
| 20 | 11800.0000 | 9500.0000 | 0.0060 | 8.0300 | 0.0680 | 0.3350 | 243.0000 | 149.0000 | 8.3500 |
| 21 | 7900.0000 | 4400.0000 | 0.0040 | 8.1800 | 0.0690 | 0.3000 | 345.0000 | 141.0000 | 5.9500 |
| 22 | 69000.0000 | 3200.0000 | 2.0000 | 7.6300 | 0.0490 | 0.1680 | 692.0000 | 12.6000 | 1.5200 |
| 23 | 6700.0000 | 320.0000 | 0.7900 | 7.4600 | 0.0740 | 0.3220 | 693.0000 | 12.0000 | 1.7800 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #2

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6051 | -0.0358 | 0.1060 | 0.5488 | 0.4968 | 0.1081 | -0.0709 | -0.1402 |
| 9 | 0.6051 | 1.0000 | -0.3010 | -0.2438 | 0.4470 | 0.5293 | -0.1701 | 0.2025 | 0.0185 |
| 46 | -0.0358 | -0.3010 | 1.0000 | -0.4025 | -0.2752 | -0.4425 | 0.5742 | -0.5428 | -0.5602 |
| 47 | 0.1060 | -0.2438 | -0.4025 | 1.0000 | -0.0945 | -0.0583 | -0.1896 | 0.1300 | 0.2963 |
| 48 | 0.5488 | 0.4470 | -0.2752 | -0.0945 | 1.0000 | 0.7555 | 0.2758 | -0.2159 | 0.0560 |
| 49 | 0.4968 | 0.5293 | -0.4425 | -0.0583 | 0.7555 | 1.0000 | -0.1063 | 0.2738 | 0.1560 |
| 50 | 0.1081 | -0.1701 | 0.5742 | -0.1896 | 0.2758 | -0.1063 | 1.0000 | -0.9236 | -0.6357 |
| 51 | -0.0709 | 0.2025 | -0.5428 | 0.1300 | -0.2159 | 0.2738 | -0.9236 | 1.0000 | 0.5856 |
| 52 | -0.1402 | 0.0185 | -0.5602 | 0.2963 | 0.0560 | 0.1560 | -0.6357 | 0.5856 | 1.0000 |

T STATISTIC FOR 21 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|----------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 3.4832 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.1640 | -1.4465 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 0.4887 | -1.1522 | -2.0146 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 3.0082 | 2.2900 | -1.3117 | -0.4349 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 2.6234 | 2.8589 | -2.2615 | -0.2675 | 5.2840 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.4983 | -0.7908 | 3.2138 | -0.8848 | 1.3149 | -0.4898 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.3259 | 0.9475 | -2.9614 | 0.6009 | -1.0132 | 1.3044 | -11.0395 | 0.0000 | 0.0000 |
| 52 | -0.6488 | 0.0846 | -3.0988 | 1.4217 | 0.2572 | 0.7238 | -3.7737 | 3.3108 | 0.0000 |

T 0.05[21] = 2.080

T 0.01[21] = 2.831

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES; ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|------------|------------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 340.0000 | 60.0000 | 0.0320 | 8.2800 | 0.0020 | 0.0190 | 376.0000 | 15.5000 | 4.1000 |
| 2 | 440.0000 | 80.0000 | 0.0500 | 8.4400 | 0.0025 | 0.0160 | 379.0000 | 5.3600 | 4.7500 |
| 3 | 1120.0000 | 4600.0000 | 0.0300 | 8.3800 | 0.0020 | 0.0190 | 387.0000 | 6.0700 | 5.0600 |
| 4 | 4000.0000 | 3800.0000 | 0.0460 | 8.5100 | 0.0020 | 0.0260 | 399.0000 | 2.7900 | 4.1000 |
| 5 | 500.0000 | 3100.0000 | 0.0080 | 8.1100 | 0.0390 | 0.4250 | 381.0000 | 286.0000 | 15.3400 |
| 6 | 1000.0000 | 3000.0000 | 0.0120 | 7.8300 | 0.0610 | 0.2970 | 376.0000 | 319.0000 | 19.5300 |
| 7 | 18000.0000 | 53000.0000 | 0.0040 | 7.7100 | 0.0470 | 0.3120 | 353.0000 | 220.0000 | 23.3500 |
| 8 | 900.0000 | 2300.0000 | 0.0120 | 8.3100 | 0.0350 | 0.2670 | 319.0000 | 195.0000 | 27.0900 |
| 9 | 1000.0000 | 2000.0000 | 0.0060 | 8.1300 | 0.0490 | 0.3920 | 318.0000 | 272.0000 | 34.8000 |
| 10 | 1000.0000 | 1000.0000 | 0.0440 | 8.3000 | 0.0510 | 0.4200 | 369.0000 | 288.0000 | 37.3900 |
| 11 | 2000.0000 | 1000.0000 | 0.0020 | 8.3100 | 0.0580 | 0.3420 | 389.0000 | 212.0000 | 30.5400 |
| 12 | 500.0000 | 3500.0000 | 0.0020 | 8.4200 | 0.0530 | 0.2550 | 347.0000 | 163.0000 | 38.3700 |
| 13 | 3500.0000 | 3100.0000 | 0.0020 | 8.3300 | 0.0250 | 0.1320 | 305.0000 | 60.3000 | 9.1100 |
| 14 | 1240.0000 | 1220.0000 | 0.0060 | 8.4000 | 0.0010 | 0.1480 | 402.0000 | 51.6000 | 11.1000 |
| 15 | 1240.0000 | 1060.0000 | 0.0040 | 8.5000 | 0.0025 | 0.1650 | 447.0000 | 29.9000 | 13.1600 |
| 16 | 940.0000 | 1140.0000 | 0.0060 | 8.3900 | 0.0020 | 0.2070 | 462.0000 | 56.9000 | 13.8300 |
| 17 | 880.0000 | 1340.0000 | 0.0060 | 8.3000 | 0.0050 | 0.2170 | 469.0000 | 127.0000 | 13.9600 |
| 18 | 520.0000 | 100.0000 | 0.0480 | 8.4400 | 0.0060 | 0.0140 | 442.0000 | 2.4300 | 2.5700 |
| 19 | 800.0000 | 1100.0000 | 0.0040 | 8.3900 | 0.0035 | 0.1720 | 272.0000 | 65.3000 | 12.5200 |
| 20 | 1100.0000 | 1180.0000 | 0.0160 | 8.4500 | 0.0160 | 0.1070 | 491.0000 | 59.9000 | 11.7000 |
| 21 | 140.0000 | 80.0000 | 0.0400 | 8.4700 | 0.0025 | 0.0250 | 417.0000 | 8.0000 | 3.7900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #3

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.9749 | -0.1918 | -0.6097 | 0.2427 | 0.1716 | -0.1615 | 0.1764 | 0.1159 |
| 9 | 0.9749 | 1.0000 | -0.2098 | -0.6769 | 0.2814 | 0.2199 | -0.1666 | 0.2408 | 0.1642 |
| 46 | -0.1918 | -0.2098 | 1.0000 | 0.3362 | -0.3548 | -0.5381 | 0.2006 | -0.3906 | -0.4343 |
| 47 | -0.6097 | -0.6769 | 0.3362 | 1.0000 | -0.6383 | -0.5772 | 0.3004 | -0.7204 | -0.3563 |
| 48 | 0.2427 | 0.2814 | -0.3548 | -0.6383 | 1.0000 | 0.8137 | -0.3958 | 0.9036 | 0.8391 |
| 49 | 0.1716 | 0.2199 | -0.5381 | -0.5772 | 0.8137 | 1.0000 | -0.2901 | 0.9360 | 0.8417 |
| 50 | -0.1615 | -0.1666 | 0.2006 | 0.3004 | -0.3958 | -0.2901 | 1.0000 | -0.3313 | -0.3564 |
| 51 | 0.1764 | 0.2408 | -0.3906 | -0.7204 | 0.9036 | 0.9360 | -0.3313 | 1.0000 | 0.7951 |
| 52 | 0.1159 | 0.1642 | -0.4343 | -0.3563 | 0.8391 | 0.8417 | -0.3564 | 0.7951 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 19.0800 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.8519 | -0.9354 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -3.3529 | -4.0087 | 1.5560 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.0903 | 1.2782 | -1.6541 | -3.6140 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 0.7595 | 0.9828 | -2.7825 | -3.0809 | 6.1023 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.7134 | -0.7365 | 0.8926 | 1.3729 | -1.8787 | -1.3216 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.7811 | 1.0815 | -1.8495 | -4.5275 | 9.1943 | 11.5944 | -1.5306 | 0.0000 | 0.0000 |
| 52 | 0.5087 | 0.7256 | -2.1018 | -1.6623 | 6.7242 | 6.7943 | -1.6628 | 5.7143 | 0.0000 |

T 0.05[19] = 2.093

T 0.01[19] = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #4

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|------------|------------|--------|--------|--------|--------|----------|----------|--------|
| 1 | 620.0000 | 620.0000 | 0.0420 | 8.2900 | 0.0140 | 0.0270 | 757.0000 | 4.9500 | 0.4000 |
| 2 | 19000.0000 | 21000.0000 | 0.4300 | 7.6100 | 0.1750 | 1.4500 | 543.0000 | 104.0000 | 0.5000 |
| 3 | 4900.0000 | 16000.0000 | 0.0560 | 7.3400 | 0.3500 | 1.4500 | 370.0000 | 90.2000 | 1.3600 |
| 4 | 8500.0000 | 59000.0000 | 0.3900 | 7.4300 | 0.1150 | 0.5300 | 237.0000 | 61.2000 | 1.3500 |
| 5 | 6300.0000 | 10900.0000 | 0.0400 | 7.8300 | 0.0800 | 0.1880 | 627.0000 | 46.3000 | 1.8600 |
| 6 | 7500.0000 | 14000.0000 | 0.2760 | 8.0600 | 0.1050 | 0.2360 | 618.0000 | 60.4000 | 1.5300 |
| 7 | 6700.0000 | 13100.0000 | 0.0400 | 7.7700 | 0.0820 | 0.2500 | 561.0000 | 37.6000 | 1.2900 |
| 8 | 6900.0000 | 13000.0000 | 0.2820 | 7.5200 | 0.0540 | 0.1850 | 558.0000 | 4.9200 | 1.0900 |
| 9 | 300.0000 | 1100.0000 | 0.0100 | 8.1500 | 0.0820 | 0.2500 | 309.0000 | 96.6000 | 2.9100 |
| 10 | 400.0000 | 1500.0000 | 0.0020 | 8.0000 | 0.0730 | 0.2050 | 337.0000 | 67.2000 | 2.8300 |
| 11 | 100.0000 | 400.0000 | 0.0040 | 8.2200 | 0.0670 | 0.1800 | 350.0000 | 55.2000 | 2.4500 |
| 12 | 100.0000 | 1900.0000 | 0.0020 | 8.0400 | 0.0650 | 0.1820 | 337.0000 | 47.8000 | 3.3900 |
| 13 | 500.0000 | 900.0000 | 0.0120 | 8.2500 | 0.0760 | 0.1750 | 298.0000 | 62.8000 | 4.4100 |
| 14 | 1800.0000 | 2300.0000 | 0.0020 | 8.1500 | 0.0830 | 0.4730 | 237.0000 | 261.0000 | 5.4600 |
| 15 | 1200.0000 | 1900.0000 | 0.0020 | 8.0900 | 0.0930 | 0.4320 | 247.0000 | 255.0000 | 9.7100 |
| 16 | 700.0000 | 1000.0000 | 0.0060 | 7.9800 | 0.0820 | 0.2370 | 290.0000 | 120.0000 | 6.0900 |
| 17 | 3400.0000 | 7900.0000 | 0.0060 | 8.0100 | 0.0665 | 0.3200 | 327.0000 | 165.0000 | 3.8600 |
| 18 | 8100.0000 | 7600.0000 | 0.0050 | 8.0300 | 0.0545 | 0.3850 | 286.0000 | 131.0000 | 5.1500 |
| 19 | 3900.0000 | 6100.0000 | 0.0160 | 7.6600 | 0.0465 | 0.2400 | 374.0000 | 95.5000 | 5.7700 |
| 20 | 2700.0000 | 5900.0000 | 0.0060 | 7.9300 | 0.0460 | 0.2650 | 274.0000 | 86.7000 | 4.1900 |
| 21 | 2600.0000 | 6300.0000 | 0.0080 | 7.9200 | 0.0505 | 0.2270 | 249.0000 | 90.1000 | 3.3900 |
| 22 | 740.0000 | 580.0000 | 0.0400 | 8.2500 | 0.0040 | 0.0280 | 748.0000 | 35.3000 | 0.3800 |
| 23 | 220.0000 | 140.0000 | 0.0900 | 8.2900 | 0.0050 | 0.0160 | 700.0000 | 18.2000 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #4

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6176 | 0.7775 | -0.6294 | 0.4001 | 0.6503 | 0.1552 | -0.0227 | -0.3042 |
| 9 | 0.6176 | 1.0000 | 0.7480 | -0.7055 | 0.3761 | 0.4384 | -0.1050 | -0.1117 | -0.3012 |
| 46 | 0.7775 | 0.7480 | 1.0000 | -0.5310 | 0.2675 | 0.4448 | 0.2612 | -0.2437 | -0.4851 |
| 47 | -0.6294 | -0.7055 | -0.5310 | 1.0000 | -0.6348 | -0.6408 | 0.1450 | 0.0775 | 0.1725 |
| 48 | 0.4001 | 0.3761 | 0.2675 | -0.6348 | 1.0000 | 0.8807 | -0.2204 | 0.1866 | -0.0787 |
| 49 | 0.6503 | 0.4384 | 0.4448 | -0.6408 | 0.8807 | 1.0000 | -0.1933 | 0.2893 | -0.0849 |
| 50 | 0.1552 | -0.1050 | 0.2612 | 0.1450 | -0.2204 | -0.1933 | 1.0000 | -0.6190 | -0.7004 |
| 51 | -0.0227 | -0.1117 | -0.2437 | 0.0775 | 0.1866 | 0.2893 | -0.6190 | 1.0000 | 0.7776 |
| 52 | -0.3042 | -0.3012 | -0.4851 | 0.1725 | -0.0787 | -0.0849 | -0.7004 | 0.7776 | 1.0000 |

T STATISTIC FOR 21 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 3.5981 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 5.6651 | 5.1640 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -3.7120 | -4.5621 | -2.8716 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 2.0007 | 1.8598 | 1.2720 | -3.7653 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 3.9229 | 2.2355 | 2.2756 | -3.8255 | 8.5205 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.7201 | -0.4837 | 1.2398 | 0.6717 | -1.0356 | -0.9031 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.1042 | -0.5149 | -1.1515 | 0.3560 | 0.8704 | 1.3849 | -3.6120 | 0.0000 | 0.0000 |
| 52 | -1.4632 | -1.4477 | -2.5425 | 0.8024 | -0.3618 | -0.3906 | -4.4967 | 5.6669 | 0.0000 |

T 0.05[21] = 2.080

T 0.01[21] = 2.831

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #5

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 9 | 7 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------------|--------------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 2600.0000 | 700.0000 | 0.0080 | 8.3300 | 0.0230 | 0.1300 | 952.0000 | 7.8000 | 0.2300 |
| 2 | 1100.0000 | 800.0000 | 0.0420 | 8.3600 | 0.0260 | 0.1350 | 849.0000 | 104.0000 | 0.3500 |
| 3 | 60000.0000 | 13600.0000 | 0.0380 | 7.5200 | 0.1050 | 0.2950 | 642.0000 | 28.4000 | 0.5200 |
| 4 | 42400000.0000 | 230000.0000 | 1.9300 | 7.3300 | 0.3250 | 2.4000 | 593.0000 | 129.0000 | 1.4600 |
| 5 | 240000.0000 | 80000.0000 | 5.6000 | 6.9900 | 1.3500 | 2.6000 | 486.0000 | 269.0000 | 1.7400 |
| 6 | 139000.0000 | 1110000.0000 | 0.0200 | 7.0500 | 0.1300 | 0.9300 | 556.0000 | 144.0000 | 3.3600 |
| 7 | 80000.0000 | 32000.0000 | 0.0260 | 7.3700 | 0.0510 | 0.8750 | 558.0000 | 302.0000 | 4.6800 |
| 8 | 6100.0000 | 32000.0000 | 0.0060 | 7.5100 | 0.0280 | 0.9050 | 426.0000 | 285.0000 | 3.2500 |
| 9 | 1800.0000 | 4100.0000 | 0.0020 | 7.7600 | 0.0610 | 0.2500 | 265.0000 | 93.5000 | 1.4100 |
| 10 | 1000.0000 | 7000.0000 | 0.0020 | 7.7300 | 0.0470 | 0.1830 | 430.0000 | 55.6000 | 5.8900 |
| 11 | 1000.0000 | 1000.0000 | 0.0020 | 8.0600 | 0.0440 | 0.2150 | 228.0000 | 82.3000 | 6.1700 |
| 12 | 1000.0000 | 2000.0000 | 0.0040 | 8.1100 | 0.0380 | 0.1350 | 232.0000 | 57.8000 | 6.3200 |
| 13 | 2200.0000 | 1800.0000 | 0.0020 | 8.0500 | 0.0500 | 0.1800 | 216.0000 | 84.0000 | 6.9700 |
| 14 | 2000.0000 | 3000.0000 | 0.0020 | 8.3300 | 0.0600 | 0.2120 | 260.0000 | 96.9000 | 5.7500 |
| 15 | 1000.0000 | 1000.0000 | 0.0100 | 8.1200 | 0.0520 | 0.1750 | 280.0000 | 77.9000 | 6.4600 |
| 16 | 2100.0000 | 3100.0000 | 0.0060 | 8.1000 | 0.0550 | 0.1600 | 318.0000 | 67.5000 | 4.9400 |
| 17 | 6500.0000 | 5900.0000 | 0.0040 | 8.0200 | 0.0390 | 0.2000 | 291.0000 | 76.8000 | 2.5100 |
| 18 | 190000.0000 | 67000.0000 | 0.0080 | 7.3000 | 0.1550 | 0.4170 | 303.0000 | 96.4000 | 3.1400 |
| 19 | 75000.0000 | 36000.0000 | 0.0060 | 7.8200 | 0.1050 | 0.3570 | 271.0000 | 70.3000 | 3.7600 |
| 20 | 7300.0000 | 6900.0000 | 0.0060 | 8.0000 | 0.0365 | 0.1870 | 228.0000 | 75.4000 | 3.4600 |
| 21 | 5200.0000 | 6700.0000 | 0.0140 | 8.0000 | 0.0350 | 0.1620 | 243.0000 | 47.9000 | 2.4200 |
| 22 | 1360.0000 | 220.0000 | 0.0040 | 8.3200 | 0.3200 | 0.4500 | 1075.0000 | 9.6200 | 0.3000 |
| 23 | 4300.0000 | 240.0000 | 0.0080 | 8.3600 | 0.0550 | 0.0900 | 981.0000 | 9.5500 | 0.2500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #5

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.2026 | 0.3686 | -0.3792 | 0.2393 | 0.6861 | 0.1009 | 0.1442 | -0.1921 |
| 9 | 0.2026 | 1.0000 | 0.0585 | -0.5446 | 0.0844 | 0.3095 | 0.0818 | 0.1916 | -0.0350 |
| 46 | 0.3686 | 0.0585 | 1.0000 | -0.5453 | 0.9638 | 0.8474 | 0.0545 | 0.4637 | -0.2026 |
| 47 | -0.3782 | -0.5446 | -0.5453 | 1.0000 | -0.5157 | -0.7517 | 0.1429 | -0.6866 | 0.0297 |
| 48 | 0.2393 | 0.0844 | 0.9638 | -0.5157 | 1.0000 | 0.7886 | 0.1256 | 0.4087 | -0.2401 |
| 49 | 0.6861 | 0.3095 | 0.8474 | -0.7517 | 0.7886 | 1.0000 | 0.1124 | 0.6284 | -0.2176 |
| 50 | 0.1009 | 0.0818 | 0.0545 | 0.1429 | 0.1256 | 0.1124 | 1.0000 | -0.1585 | -0.7249 |
| 51 | 0.1442 | 0.1916 | 0.4637 | -0.6866 | 0.4087 | 0.6284 | -0.1585 | 1.0000 | 0.1344 |
| 52 | -0.1921 | -0.0350 | -0.2026 | 0.0297 | -0.2401 | -0.2176 | -0.7249 | 0.1344 | 1.0000 |

T STATISTIC FOR 21 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.9482 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.8169 | 0.2685 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.8724 | -2.9758 | -2.9812 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.1294 | 0.3879 | 16.5732 | -2.7582 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 4.3215 | 1.4915 | 7.3128 | -5.2226 | 5.8762 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.4645 | 0.3763 | 0.2500 | 0.6618 | 0.5801 | 0.5183 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.6677 | 0.8947 | 2.3984 | -4.3281 | 2.0521 | 3.7024 | -0.7356 | 0.0000 | 0.0000 |
| 52 | -0.8972 | -0.1603 | -0.9482 | 0.1362 | -1.1333 | -1.0217 | -4.8225 | 0.6215 | 0.0000 |

T 0.05[21] = 2.080

T 0.01[21] = 2.831

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 160.0000 | 100.0000 | 0.0200 | 8.4500 | 0.0040 | 0.0270 | 390.0000 | 11.9000 | 2.9100 |
| 2 | 260.0000 | 1060.0000 | 0.0160 | 8.2700 | 0.0340 | 0.0310 | 357.0000 | 10.1000 | 3.3900 |
| 3 | 550.0000 | 860.0000 | 0.0100 | 8.4700 | 0.0140 | 0.0650 | 374.0000 | 11.9000 | 3.5900 |
| 4 | 9200.0000 | 4200.0000 | 0.0140 | 8.4000 | 0.0095 | 0.0340 | 369.0000 | 9.8700 | 4.5700 |
| 5 | 8400.0000 | 4600.0000 | 0.0120 | 7.9400 | 0.0120 | 0.0600 | 395.0000 | 14.1000 | 4.1900 |
| 6 | 4800.0000 | 2200.0000 | 0.0220 | 8.0800 | 0.0090 | 0.0430 | 389.0000 | 17.0000 | 4.7400 |
| 7 | 1900.0000 | 1740.0000 | 0.0160 | 8.3000 | 0.0110 | 0.0450 | 371.0000 | 19.1000 | 4.9500 |
| 8 | 2240.0000 | 1460.0000 | 0.0120 | 8.3100 | 0.0065 | 0.0300 | 374.0000 | 20.2000 | 4.6700 |
| 9 | 700.0000 | 1200.0000 | 0.0020 | 8.3500 | 0.0790 | 0.3720 | 352.0000 | 227.0000 | 19.4400 |
| 10 | 700.0000 | 1200.0000 | 0.0020 | 8.4100 | 0.0680 | 0.4000 | 354.0000 | 208.0000 | 21.1400 |
| 11 | 400.0000 | 2000.0000 | 0.0320 | 8.2900 | 0.0380 | 0.2850 | 323.0000 | 230.0000 | 21.7200 |
| 12 | 100.0000 | 2500.0000 | 0.0020 | 8.4000 | 0.0290 | 0.2570 | 308.0000 | 165.0000 | 24.3200 |
| 13 | 600.0000 | 2200.0000 | 0.0020 | 8.4100 | 0.0320 | 0.2620 | 308.0000 | 215.0000 | 24.5300 |
| 14 | 200.0000 | 2200.0000 | 0.0020 | 8.1100 | 0.0430 | 0.3600 | 301.0000 | 274.0000 | 25.2500 |
| 15 | 200.0000 | 2200.0000 | 0.0020 | 8.1800 | 0.0460 | 0.4230 | 340.0000 | 357.0000 | 43.7500 |
| 16 | 1400.0000 | 2300.0000 | 0.0020 | 8.2100 | 0.0490 | 0.2320 | 354.0000 | 166.0000 | 28.0200 |
| 17 | 1300.0000 | 2020.0000 | 0.0060 | 8.1000 | 0.0200 | 0.1120 | 309.0000 | 56.0000 | 9.2700 |
| 18 | 600.0000 | 980.0000 | 0.0100 | 8.3700 | 0.0065 | 0.1720 | 457.0000 | 144.0000 | 16.2300 |
| 19 | 740.0000 | 780.0000 | 0.0080 | 8.4000 | 0.0110 | 0.1720 | 440.0000 | 133.0000 | 15.8900 |
| 20 | 400.0000 | 580.0000 | 0.0040 | 8.4900 | 0.0060 | 0.2250 | 491.0000 | 141.0000 | 16.3100 |
| 21 | 1360.0000 | 1560.0000 | 0.0060 | 8.4300 | 0.0090 | 0.1800 | 427.0000 | 140.0000 | 16.3100 |
| 22 | 300.0000 | 340.0000 | 0.0180 | 8.5100 | 0.0080 | 0.0220 | 378.0000 | 7.6900 | 2.3600 |
| 23 | 1080.0000 | 1300.0000 | 0.0040 | 8.4900 | 0.0150 | 0.1430 | 423.0000 | 125.0000 | 16.3100 |
| 24 | 980.0000 | 1160.0000 | 0.0030 | 8.4500 | 0.0110 | 0.1450 | 403.0000 | 134.0000 | 15.6300 |
| 25 | 30.0000 | 30.0000 | 0.0520 | 8.4400 | 0.0030 | 0.0200 | 369.0000 | 17.5000 | 2.5900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #6

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.7810 | 0.1149 | -0.4244 | -0.2139 | -0.3720 | 0.0947 | -0.4071 | -0.3572 |
| 9 | 0.7810 | 1.0000 | -0.2977 | -0.6299 | 0.1532 | 0.0836 | -0.3263 | 0.0724 | 0.1567 |
| 46 | 0.1149 | -0.2977 | 1.0000 | 0.0871 | -0.5389 | -0.6710 | 0.1350 | -0.6427 | -0.6511 |
| 47 | -0.4244 | -0.6299 | 0.0871 | 1.0000 | -0.1687 | -0.0736 | 0.3591 | -0.0650 | -0.1049 |
| 48 | -0.2139 | 0.1532 | -0.5389 | -0.1687 | 1.0000 | 0.8456 | -0.5115 | 0.7321 | 0.6753 |
| 49 | -0.3720 | 0.0836 | -0.6710 | -0.0736 | 0.8456 | 1.0000 | -0.2939 | 0.9619 | 0.9058 |
| 50 | 0.0947 | -0.3263 | 0.1350 | 0.3591 | -0.5115 | -0.2939 | 1.0000 | -0.2653 | -0.2707 |
| 51 | -0.4071 | 0.0724 | -0.6427 | -0.0650 | 0.7321 | 0.9619 | -0.2653 | 1.0000 | 0.9565 |
| 52 | -0.3572 | 0.1567 | -0.6511 | -0.1049 | 0.6753 | 0.9058 | -0.2707 | 0.9565 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 5.9979 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.5549 | -1.4956 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.2477 | -3.8898 | 0.4194 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -1.0502 | 0.7437 | -3.0680 | -0.8210 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -1.9221 | 0.4024 | -4.3399 | -0.3541 | 7.5963 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.4564 | -1.6554 | 0.6533 | 1.8455 | -2.8545 | -1.4747 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -2.1373 | 0.3484 | -4.0233 | -0.3125 | 5.1536 | 16.8822 | -1.3197 | 0.0000 | 0.0000 |
| 52 | -1.8340 | 0.7609 | -4.1140 | -0.5059 | 4.3908 | 10.2498 | -1.3487 | 15.7274 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #7

INPUT DATA MATRIX - COLUMNS = VARIABLES; ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 200.0000 | 60.0000 | 0.0120 | 8.3300 | 0.0055 | 0.0150 | 367.0000 | 9.2300 | 3.1100 |
| 2 | 2420.0000 | 960.0000 | 0.0040 | 8.4400 | 0.0130 | 0.0200 | 356.0000 | 11.3000 | 3.1700 |
| 3 | 540.0000 | 960.0000 | 0.0260 | 8.4800 | 0.0070 | 0.0270 | 364.0000 | 9.1500 | 3.4400 |
| 4 | 780.0000 | 1660.0000 | 0.0220 | 8.4900 | 0.0060 | 0.0330 | 372.0000 | 8.2900 | 3.7300 |
| 5 | 1620.0000 | 3800.0000 | 0.0240 | 8.5700 | 0.0065 | 0.0350 | 357.0000 | 21.6000 | 3.8100 |
| 6 | 1960.0000 | 4400.0000 | 0.0200 | 8.5400 | 0.0060 | 0.0300 | 353.0000 | 19.7000 | 4.5000 |
| 7 | 1660.0000 | 2940.0000 | 0.0140 | 8.5200 | 0.0075 | 0.0380 | 349.0000 | 8.2000 | 5.0300 |
| 8 | 2960.0000 | 2600.0000 | 0.0100 | 8.4500 | 0.0065 | 0.0380 | 351.0000 | 21.9000 | 4.8800 |
| 9 | 200.0000 | 1900.0000 | 0.0020 | 8.2400 | 0.0310 | 0.2520 | 367.0000 | 263.0000 | 22.5800 |
| 10 | 700.0000 | 2200.0000 | 0.0020 | 7.9000 | 0.0260 | 0.2620 | 331.0000 | 190.0000 | 23.4100 |
| 11 | 600.0000 | 1800.0000 | 0.0020 | 8.0800 | 0.0280 | 0.2600 | 306.0000 | 190.0000 | 32.4000 |
| 12 | 400.0000 | 1800.0000 | 0.0020 | 8.2700 | 0.0410 | 0.3900 | 294.0000 | 267.0000 | 35.8200 |
| 13 | 700.0000 | 2100.0000 | 0.0020 | 8.2600 | 0.0530 | 0.5250 | 332.0000 | 399.0000 | 45.8100 |
| 14 | 400.0000 | 1700.0000 | 0.0060 | 8.3000 | 0.0640 | 0.4250 | 311.0000 | 421.0000 | 45.8100 |
| 15 | 200.0000 | 1400.0000 | 0.0160 | 8.1600 | 0.0590 | 0.3750 | 331.0000 | 268.0000 | 42.0100 |
| 16 | 1000.0000 | 3200.0000 | 0.0060 | 8.4600 | 0.0550 | 0.3150 | 0.0000 | 0.0000 | 30.0400 |
| 17 | 1140.0000 | 1660.0000 | 0.0040 | 8.3400 | 0.0205 | 0.1120 | 326.0000 | 36.7000 | 8.4100 |
| 18 | 780.0000 | 860.0000 | 0.0080 | 8.3900 | 0.0110 | 0.1630 | 404.0000 | 92.2000 | 13.6600 |
| 19 | 380.0000 | 1100.0000 | 0.0080 | 8.2700 | 0.0150 | 0.1870 | 424.0000 | 149.0000 | 17.2600 |
| 20 | 1740.0000 | 1700.0000 | 0.0060 | 8.3600 | 0.0010 | 0.1670 | 447.0000 | 106.0000 | 17.7100 |
| 21 | 360.0000 | 860.0000 | 0.0060 | 8.3000 | 0.0120 | 0.1450 | 435.0000 | 120.0000 | 17.7100 |
| 22 | 120.0000 | 100.0000 | 0.0120 | 8.5700 | 0.0070 | 0.0210 | 366.0000 | 5.7000 | 2.7000 |
| 23 | 1140.0000 | 1340.0000 | 0.0060 | 8.4000 | 0.0070 | 0.1270 | 431.0000 | 109.0000 | 15.4500 |
| 24 | 1320.0000 | 1420.0000 | 0.0100 | 8.3600 | 0.0270 | 0.1270 | 440.0000 | 63.4000 | 14.1400 |
| 25 | 20.0000 | 30.0000 | 0.0480 | 8.4700 | 0.0035 | 0.0210 | 347.0000 | 13.9000 | 2.7600 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.5455 | -0.1021 | 0.3710 | -0.3227 | -0.3587 | 0.0411 | -0.3830 | -0.3653 |
| 9 | 0.5455 | 1.0000 | -0.0984 | 0.1333 | 0.1514 | 0.1183 | -0.3656 | -0.0011 | 0.1021 |
| 46 | -0.1021 | -0.0984 | 1.0000 | 0.5064 | -0.3995 | -0.5175 | 0.0822 | -0.4478 | -0.4956 |
| 47 | 0.3710 | 0.1333 | 0.5064 | 1.0000 | -0.4761 | -0.6199 | 0.0007 | -0.6364 | -0.6331 |
| 48 | -0.3227 | 0.1514 | -0.3995 | -0.4761 | 1.0000 | 0.8900 | -0.5524 | 0.7559 | 0.9020 |
| 49 | -0.3587 | 0.1183 | -0.5175 | -0.6199 | 0.8900 | 1.0000 | -0.3465 | 0.9030 | 0.9822 |
| 50 | 0.0411 | -0.3656 | 0.0822 | 0.0007 | -0.5524 | -0.3465 | 1.0000 | -0.0148 | -0.3343 |
| 51 | -0.3830 | -0.0011 | -0.4478 | -0.6364 | 0.7559 | 0.9030 | -0.0148 | 1.0000 | 0.9066 |
| 52 | -0.3653 | 0.1021 | -0.4956 | -0.6331 | 0.9020 | 0.9822 | -0.3343 | 0.9066 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 3.1214 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.4923 | -0.4744 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 1.9161 | 0.6453 | 2.8167 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -1.6349 | 0.7344 | -2.0902 | -2.5962 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -1.8430 | 0.5714 | -2.9004 | -3.7888 | 9.3586 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.1974 | -1.8836 | 0.3957 | 0.0036 | -3.1785 | -1.7717 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -1.9885 | -0.0054 | -2.4017 | -3.9571 | 5.5365 | 10.0825 | -0.0711 | 0.0000 | 0.0000 |
| 52 | -1.8820 | 0.4922 | -2.7368 | -3.9222 | 10.0184 | 25.0547 | -1.7008 | 10.3052 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 120.0000 | 100.0000 | 0.0120 | 8.5300 | 0.0045 | 0.0210 | 439.0000 | 8.9600 | 0.4000 |
| 2 | 1980.0000 | 3220.0000 | 0.0240 | 8.3900 | 0.0030 | 0.0240 | 418.0000 | 4.9800 | 0.5600 |
| 3 | 6800.0000 | 15200.0000 | 0.0060 | 8.5300 | 0.0435 | 0.0850 | 382.0000 | 11.7000 | 0.6400 |
| 4 | 9100.0000 | 13000.0000 | 0.0080 | 8.2200 | 0.0085 | 0.0470 | 365.0000 | 11.1000 | 1.0400 |
| 5 | 4900.0000 | 19000.0000 | 0.0320 | 8.1500 | 0.0035 | 0.0630 | 410.0000 | 24.7000 | 1.0500 |
| 6 | 1800.0000 | 7500.0000 | 0.0240 | 8.2000 | 0.0035 | 0.0750 | 377.0000 | 23.4000 | 0.9000 |
| 7 | 3800.0000 | 5500.0000 | 0.0260 | 8.1800 | 0.0055 | 0.0550 | 335.0000 | 8.3100 | 0.7700 |
| 8 | 3300.0000 | 3700.0000 | 0.0260 | 8.3000 | 0.0040 | 0.0470 | 340.0000 | 5.0900 | 0.6800 |
| 9 | 200.0000 | 600.0000 | 0.0080 | 8.2900 | 0.0260 | 0.1720 | 410.0000 | 103.0000 | 1.9100 |
| 10 | 200.0000 | 100.0000 | 0.0060 | 8.3500 | 0.0250 | 0.1670 | 418.0000 | 100.0000 | 2.3600 |
| 11 | 200.0000 | 600.0000 | 0.0040 | 8.4100 | 0.0300 | 0.2150 | 351.0000 | 118.0000 | 3.9900 |
| 12 | 200.0000 | 400.0000 | 0.0060 | 8.2800 | 0.0360 | 0.1830 | 341.0000 | 110.0000 | 4.3900 |
| 13 | 400.0000 | 100.0000 | 0.0080 | 8.1000 | 0.0480 | 0.2250 | 307.0000 | 127.0000 | 5.1300 |
| 14 | 500.0000 | 200.0000 | 0.0040 | 8.1700 | 0.0620 | 0.2400 | 323.0000 | 110.0000 | 5.7000 |
| 15 | 800.0000 | 1000.0000 | 0.0060 | 8.2500 | 0.0730 | 0.2700 | 367.0000 | 125.0000 | 11.4300 |
| 16 | 500.0000 | 1800.0000 | 0.0060 | 7.9300 | 0.0850 | 0.2720 | 353.0000 | 108.0000 | 7.9500 |
| 17 | 620.0000 | 1460.0000 | 0.0040 | 8.4400 | 0.0215 | 0.0850 | 348.0000 | 34.2000 | 1.4400 |
| 18 | 320.0000 | 420.0000 | 0.0080 | 8.2100 | 0.0220 | 0.1300 | 447.0000 | 94.5000 | 4.9700 |
| 19 | 220.0000 | 320.0000 | 0.0060 | 8.3800 | 0.0165 | 0.1050 | 505.0000 | 93.5000 | 5.1700 |
| 20 | 720.0000 | 820.0000 | 0.0100 | 8.2300 | 0.0200 | 0.1070 | 541.0000 | 79.6000 | 4.9700 |
| 21 | 1840.0000 | 1420.0000 | 0.0060 | 8.4400 | 0.0380 | 0.1170 | 526.0000 | 94.2000 | 4.6700 |
| 22 | 140.0000 | 50.0000 | 0.0180 | 8.4600 | 0.0040 | 0.0180 | 455.0000 | 3.6800 | 0.3700 |
| 23 | 1800.0000 | 2620.0000 | 0.0040 | 8.2900 | 0.0460 | 0.1100 | 524.0000 | 69.0000 | 4.0300 |
| 24 | 1480.0000 | 2440.0000 | 0.0040 | 8.4600 | 0.0050 | 0.1070 | 511.0000 | 83.9000 | 3.3800 |
| 25 | 80.0000 | 40.0000 | 0.0280 | 8.5000 | 0.0030 | 0.0180 | 467.0000 | 1.3600 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #8

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.8712 | 0.2248 | -0.0555 | -0.2006 | -0.3717 | -0.1855 | -0.5069 | -0.3663 |
| 9 | 0.8712 | 1.0000 | 0.3735 | -0.1155 | -0.2137 | -0.3344 | -0.1710 | -0.4805 | -0.3774 |
| 46 | 0.2248 | 0.3735 | 1.0000 | -0.0447 | -0.6139 | -0.6164 | -0.0570 | -0.7018 | -0.5642 |
| 47 | -0.0555 | -0.1155 | -0.0447 | 1.0000 | -0.4436 | -0.5192 | 0.4111 | -0.3615 | -0.4507 |
| 48 | -0.2006 | -0.2137 | -0.6139 | -0.4436 | 1.0000 | 0.8638 | -0.2761 | 0.6929 | 0.8066 |
| 49 | -0.3717 | -0.3344 | -0.6164 | -0.5192 | 0.8638 | 1.0000 | -0.3587 | 0.9064 | 0.8363 |
| 50 | -0.1855 | -0.1710 | -0.0570 | 0.4111 | -0.2761 | -0.3587 | 1.0000 | -0.0448 | -0.0215 |
| 51 | -0.5069 | -0.4805 | -0.7018 | -0.3615 | 0.6929 | 0.9064 | -0.0448 | 1.0000 | 0.8141 |
| 52 | -0.3663 | -0.3774 | -0.5642 | -0.4507 | 0.8066 | 0.8363 | -0.0215 | 0.8141 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 8.5119 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.1065 | 1.9313 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -0.2664 | -0.5579 | -0.2145 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.9823 | -1.0490 | -3.7301 | -2.3738 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -1.9200 | -1.7016 | -3.7541 | -2.9132 | 8.2210 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.9052 | -0.8322 | -0.2736 | 2.1628 | -1.3777 | -1.8431 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -2.8202 | -2.6280 | -4.7251 | -1.8596 | 4.6082 | 10.2901 | -0.2150 | 0.0000 | 0.0000 |
| 52 | -1.8877 | -1.9547 | -3.2768 | -2.4213 | 6.5448 | 7.3151 | -0.1033 | 6.7238 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station 49

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 120.0000 | 120.0000 | 0.0040 | 8.4100 | 0.0030 | 0.0310 | 327.0000 | 34.0000 | 1.9200 |
| 2 | 580.0000 | 980.0000 | 0.0120 | 8.4700 | 0.0030 | 0.0290 | 331.0000 | 18.3000 | 1.8900 |
| 3 | 940.0000 | 3800.0000 | 0.0240 | 8.5400 | 0.0125 | 0.0340 | 349.0000 | 15.5000 | 2.6300 |
| 4 | 4100.0000 | 9000.0000 | 0.0060 | 8.2700 | 0.1500 | 1.4300 | 0.0000 | 0.0000 | 3.3600 |
| 5 | 4700.0000 | 25000.0000 | 0.2260 | 8.1100 | 0.1200 | 0.4550 | 326.0000 | 142.0000 | 2.8900 |
| 6 | 1700.0000 | 5000.0000 | 0.1720 | 8.4000 | 0.0850 | 0.2270 | 319.0000 | 79.8000 | 2.5000 |
| 7 | 3600.0000 | 6300.0000 | 0.1120 | 8.3300 | 0.0560 | 0.1150 | 324.0000 | 41.5000 | 2.2600 |
| 8 | 1700.0000 | 2700.0000 | 0.0800 | 8.5500 | 0.0410 | 0.0790 | 334.0000 | 27.7000 | 2.1800 |
| 9 | 100.0000 | 700.0000 | 0.0080 | 8.3100 | 0.0400 | 0.3100 | 352.0000 | 168.0000 | 12.1900 |
| 10 | 200.0000 | 1400.0000 | 0.0160 | 8.2200 | 0.0320 | 0.3650 | 357.0000 | 158.0000 | 13.2000 |
| 11 | 600.0000 | 2000.0000 | 0.0060 | 8.3500 | 0.0890 | 0.3570 | 320.0000 | 216.0000 | 13.7700 |
| 12 | 100.0000 | 600.0000 | 0.0060 | 8.3200 | 0.0390 | 0.2900 | 311.0000 | 180.0000 | 15.9300 |
| 13 | 400.0000 | 900.0000 | 0.0060 | 8.5500 | 0.0960 | 0.3100 | 308.0000 | 278.0000 | 18.4700 |
| 14 | 300.0000 | 930.0000 | 0.0060 | 8.3400 | 0.0630 | 0.3950 | 332.0000 | 394.0000 | 26.9300 |
| 15 | 300.0000 | 800.0000 | 0.0040 | 8.2900 | 0.0500 | 0.3850 | 333.0000 | 287.0000 | 29.4700 |
| 16 | 100.0000 | 2400.0000 | 0.0040 | 8.4100 | 0.0380 | 0.2170 | 364.0000 | 173.0000 | 17.5400 |
| 17 | 540.0000 | 1340.0000 | 0.0060 | 8.4900 | 0.0165 | 0.0750 | 385.0000 | 56.5000 | 4.1300 |
| 18 | 2100.0000 | 1780.0000 | 0.0140 | 8.4700 | 0.0245 | 0.1170 | 344.0000 | 59.8000 | 4.6100 |
| 19 | 580.0000 | 1500.0000 | 0.0040 | 8.4900 | 0.0250 | 0.1770 | 362.0000 | 154.0000 | 6.0200 |
| 20 | 120.0000 | 1100.0000 | 0.0020 | 8.4400 | 0.0090 | 0.1230 | 435.0000 | 113.0000 | 8.1300 |
| 21 | 1380.0000 | 1960.0000 | 0.0060 | 8.5200 | 0.0700 | 0.1500 | 445.0000 | 124.0000 | 7.9400 |
| 22 | 110.0000 | 120.0000 | 0.0060 | 8.3300 | 0.0070 | 0.0270 | 377.0000 | 8.3600 | 1.5800 |
| 23 | 700.0000 | 1020.0000 | 0.0060 | 8.5000 | 0.0120 | 0.1170 | 415.0000 | 105.0000 | 7.1200 |
| 24 | 720.0000 | 1180.0000 | 0.0020 | 8.5100 | 0.0095 | 0.1000 | 401.0000 | 87.6000 | 6.4600 |
| 25 | 60.0000 | 40.0000 | 0.0360 | 8.4800 | 0.0045 | 0.0190 | 385.0000 | 3.0000 | 1.1700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #9

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.8324 | 0.6773 | -0.3731 | 0.6565 | 0.4875 | -0.5231 | -0.2836 | -0.3937 |
| 9 | 0.8324 | 1.0000 | 0.7890 | -0.5590 | 0.6150 | 0.3936 | -0.3236 | -0.0835 | -0.2537 |
| 46 | 0.6773 | 0.7890 | 1.0000 | -0.3788 | 0.4224 | 0.0276 | -0.0778 | -0.1556 | -0.3466 |
| 47 | -0.3731 | -0.5590 | -0.3788 | 1.0000 | -0.4603 | -0.5271 | 0.3749 | -0.2343 | -0.2217 |
| 48 | 0.6565 | 0.6150 | 0.4224 | -0.4603 | 1.0000 | 0.7944 | -0.6650 | 0.2981 | 0.1868 |
| 49 | 0.4875 | 0.3936 | 0.0276 | -0.5271 | 0.7944 | 1.0000 | -0.8647 | 0.1780 | 0.2189 |
| 50 | -0.5231 | -0.3236 | -0.0778 | 0.3749 | -0.6650 | -0.8647 | 1.0000 | 0.1065 | 0.0286 |
| 51 | -0.2836 | -0.0835 | -0.1556 | -0.2343 | 0.2981 | 0.1780 | 0.1065 | 1.0000 | 0.9195 |
| 52 | -0.3937 | -0.2537 | -0.3466 | -0.2217 | 0.1868 | 0.2189 | 0.0286 | 0.9195 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|--------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 7.2048 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 4.4147 | 6.1596 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.9284 | -3.2335 | -1.9632 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 4.1738 | 3.7400 | 2.2352 | -2.4868 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 2.6775 | 2.0534 | 0.1325 | -2.9743 | 6.2721 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -2.9433 | -1.6401 | -0.3741 | 1.9393 | -4.2701 | -8.2560 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -1.4181 | -0.4019 | -0.7556 | -1.1558 | 1.4976 | 0.8677 | 0.5134 | 0.0000 | 0.0000 |
| 52 | -2.0538 | -1.2581 | -1.7718 | -1.0904 | 0.9120 | 1.0760 | 0.1374 | 11.2178 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982
Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 20.0000 | 40.0000 | 0.0100 | 8.4600 | 0.0035 | 0.0260 | 353.0000 | 19.1000 | 2.4900 |
| 2 | 20.0000 | 40.0000 | 0.0220 | 8.4100 | 0.0025 | 0.0190 | 354.0000 | 9.9800 | 2.4900 |
| 3 | 100.0000 | 40.0000 | 0.0180 | 8.3000 | 0.0025 | 0.0180 | 338.0000 | 10.1000 | 2.5500 |
| 4 | 140.0000 | 260.0000 | 0.0280 | 8.4100 | 0.0020 | 0.0300 | 352.0000 | 8.3700 | 2.6700 |
| 5 | 160.0000 | 460.0000 | 0.0060 | 8.4400 | 0.0035 | 0.0380 | 351.0000 | 13.9000 | 2.6700 |
| 6 | 760.0000 | 2020.0000 | 0.0080 | 8.4400 | 0.0035 | 0.0310 | 349.0000 | 11.0000 | 2.6100 |
| 7 | 1300.0000 | 3200.0000 | 0.0160 | 8.4800 | 0.0030 | 0.0310 | 349.0000 | 7.8700 | 2.6100 |
| 8 | 600.0000 | 600.0000 | 0.0040 | 8.3200 | 0.0360 | 0.2900 | 339.0000 | 243.0000 | 12.9400 |
| 9 | 100.0000 | 800.0000 | 0.0040 | 8.3800 | 0.0320 | 0.2220 | 332.0000 | 227.0000 | 11.6000 |
| 10 | 100.0000 | 900.0000 | 0.0040 | 8.2700 | 0.0340 | 0.2270 | 336.0000 | 186.0000 | 12.1100 |
| 11 | 500.0000 | 1100.0000 | 0.0040 | 8.2300 | 0.0380 | 0.2570 | 338.0000 | 189.0000 | 13.5800 |
| 12 | 200.0000 | 900.0000 | 0.0080 | 8.1600 | 0.0520 | 0.3670 | 336.0000 | 226.0000 | 19.0400 |
| 13 | 300.0000 | 800.0000 | 0.0060 | 8.2800 | 0.0560 | 0.4150 | 330.0000 | 285.0000 | 21.2500 |
| 14 | 400.0000 | 300.0000 | 0.0040 | 8.3100 | 0.0580 | 0.3450 | 350.0000 | 272.0000 | 21.3800 |
| 15 | 500.0000 | 1400.0000 | 0.0060 | 8.2900 | 0.0340 | 0.2150 | 351.0000 | 160.0000 | 14.1200 |
| 16 | 1020.0000 | 1340.0000 | 0.0040 | 8.2700 | 0.0260 | 0.1370 | 360.0000 | 95.5000 | 3.7300 |
| 17 | 660.0000 | 820.0000 | 0.0260 | 8.4700 | 0.0135 | 0.0730 | 350.0000 | 54.6000 | 4.3100 |
| 18 | 580.0000 | 860.0000 | 0.0020 | 8.4200 | 0.0205 | 0.1320 | 384.0000 | 109.0000 | 7.0100 |
| 19 | 860.0000 | 1320.0000 | 0.0060 | 8.4200 | 0.0100 | 0.1270 | 401.0000 | 122.0000 | 8.2600 |
| 20 | 1040.0000 | 8600.0000 | 1.0400 | 8.4800 | 0.0390 | 0.2320 | 421.0000 | 187.0000 | 8.1800 |
| 21 | 60.0000 | 40.0000 | 0.0040 | 8.3300 | 0.0080 | 0.0210 | 373.0000 | 12.1000 | 2.1000 |
| 22 | 780.0000 | 940.0000 | 0.0100 | 8.2800 | 0.0225 | 0.1020 | 435.0000 | 48.4000 | 7.4700 |
| 23 | 540.0000 | 700.0000 | 0.0140 | 8.4800 | 0.0570 | 0.0930 | 496.0000 | 75.9000 | 6.7900 |
| 24 | 50.0000 | 30.0000 | 0.0180 | 8.4600 | 0.0035 | 0.0150 | 347.0000 | 20.3000 | 2.3000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #10

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6279 | 0.3340 | 0.1869 | 0.0937 | 0.0526 | 0.3622 | 0.0427 | -0.0377 |
| 9 | 0.6279 | 1.0000 | 0.9079 | 0.2630 | 0.1596 | 0.1605 | 0.2888 | 0.1699 | 0.0164 |
| 46 | 0.3340 | 0.9079 | 1.0000 | 0.2758 | 0.1523 | 0.1301 | 0.3144 | 0.1531 | -0.0148 |
| 47 | 0.1869 | 0.2630 | 0.2758 | 1.0000 | -0.4802 | -0.6170 | 0.3449 | -0.5289 | -0.6260 |
| 48 | 0.0937 | 0.1596 | 0.1523 | -0.4802 | 1.0000 | 0.8746 | 0.1873 | 0.8552 | 0.8627 |
| 49 | 0.0526 | 0.1605 | 0.1301 | -0.6170 | 0.8746 | 1.0000 | -0.1971 | 0.9752 | 0.9644 |
| 50 | 0.3622 | 0.2888 | 0.3144 | 0.3449 | 0.1873 | -0.1971 | 1.0000 | -0.1824 | -0.1872 |
| 51 | 0.0427 | 0.1699 | 0.1531 | -0.5289 | 0.8552 | 0.9752 | -0.1824 | 1.0000 | 0.9353 |
| 52 | -0.0377 | 0.0164 | -0.0148 | -0.6260 | 0.8627 | 0.9644 | -0.1872 | 0.9353 | 1.0000 |

T STATISTIC FOR 22 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|--------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 3.7844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.6623 | 10.1596 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 0.8922 | 1.2785 | 1.3460 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 0.4415 | 0.7585 | 0.7228 | -2.5680 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 0.2472 | 0.7625 | 0.6153 | -3.6776 | 8.4616 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 1.8224 | 1.4149 | 1.5535 | 1.7233 | 0.8943 | -0.9429 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.2004 | 0.8088 | 0.7269 | -2.9230 | 7.7393 | 20.6497 | -0.8699 | 0.0000 | 0.0000 |
| 52 | -0.1769 | 0.0767 | -0.0693 | -3.7649 | 8.0003 | 17.1038 | -0.8941 | 12.3963 | 0.0000 |

T 0.05[22] = 2.074

T 0.01[22] = 2.819

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|--------|
| 1 | 420.0000 | 440.0000 | 0.0400 | 8.2600 | 0.0120 | 0.0420 | 764.0000 | 4.6500 | 0.1100 |
| 2 | 1300.0000 | 9200.0000 | 0.2780 | 8.3500 | 0.0450 | 0.1120 | 647.0000 | 51.0000 | 0.1700 |
| 3 | 2700.0000 | 3600.0000 | 0.2960 | 7.6600 | 0.0700 | 0.2020 | 521.0000 | 27.0000 | 0.8800 |
| 4 | 8500.0000 | 7000.0000 | 0.6700 | 7.9400 | 0.0530 | 1.1500 | 506.0000 | 572.0000 | 1.9600 |
| 5 | 4300.0000 | 31000.0000 | 0.7300 | 7.1300 | 0.1300 | 1.5000 | 511.0000 | 517.0000 | 1.8400 |
| 6 | 4100.0000 | 14000.0000 | 0.5700 | 7.0900 | 0.0500 | 0.8750 | 463.0000 | 447.0000 | 1.7600 |
| 7 | 3700.0000 | 11000.0000 | 0.0780 | 7.9000 | 0.0950 | 0.4750 | 308.0000 | 176.0000 | 1.3300 |
| 8 | 3300.0000 | 17000.0000 | 0.0140 | 8.0900 | 0.0735 | 0.2430 | 381.0000 | 67.3000 | 0.8200 |
| 9 | 500.0000 | 1000.0000 | 0.0100 | 8.1900 | 0.0590 | 0.1670 | 207.0000 | 55.6000 | 0.9600 |
| 10 | 100.0000 | 2000.0000 | 0.0160 | 8.1700 | 0.0390 | 0.2950 | 359.0000 | 56.1000 | 1.2000 |
| 11 | 1000.0000 | 3800.0000 | 0.0120 | 7.7500 | 0.0360 | 0.2170 | 265.0000 | 97.1000 | 2.4400 |
| 12 | 400.0000 | 500.0000 | 0.0080 | 8.2200 | 0.0410 | 0.1500 | 226.0000 | 80.1000 | 2.9300 |
| 13 | 500.0000 | 900.0000 | 0.0040 | 8.2800 | 0.0590 | 0.2470 | 236.0000 | 116.0000 | 4.4400 |
| 14 | 700.0000 | 1100.0000 | 0.0100 | 8.1200 | 0.0590 | 0.2270 | 312.0000 | 99.7000 | 3.5900 |
| 15 | 400.0000 | 1200.0000 | 0.0080 | 8.1800 | 0.0630 | 0.2150 | 309.0000 | 73.3000 | 3.1400 |
| 16 | 5900.0000 | 7700.0000 | 0.0020 | 7.8700 | 0.0350 | 0.2020 | 260.0000 | 84.2000 | 1.3900 |
| 17 | 4800.0000 | 5900.0000 | 0.0060 | 8.1300 | 0.0300 | 0.1530 | 239.0000 | 67.3000 | 1.7600 |
| 18 | 3300.0000 | 6300.0000 | 0.0080 | 7.9500 | 0.0320 | 0.1430 | 224.0000 | 67.5000 | 2.0000 |
| 19 | 4500.0000 | 6100.0000 | 0.0020 | 7.7500 | 0.0460 | 0.1850 | 238.0000 | 49.6000 | 1.3900 |
| 20 | 4700.0000 | 5500.0000 | 0.0040 | 8.0800 | 0.0390 | 0.1400 | 239.0000 | 51.9000 | 1.1700 |
| 21 | 1460.0000 | 180.0000 | 0.0860 | 8.3800 | 0.1780 | 0.2250 | 944.0000 | 2.6200 | 0.1300 |
| 22 | 420.0000 | 340.0000 | 0.0440 | 8.1300 | 0.0170 | 0.1130 | 990.0000 | 23.0000 | 0.1000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982
 Station #11

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.4952 | 0.5012 | -0.4638 | 0.0498 | 0.5271 | -0.1642 | 0.5856 | -0.0836 |
| 9 | 0.4952 | 1.0000 | 0.6369 | -0.6991 | 0.3459 | 0.7319 | -0.0254 | 0.6357 | -0.1024 |
| 46 | 0.5012 | 0.6369 | 1.0000 | -0.6572 | 0.3079 | 0.8961 | 0.3029 | 0.8885 | -0.0608 |
| 47 | -0.4638 | -0.6991 | -0.6572 | 1.0000 | -0.1278 | -0.6978 | 0.1086 | -0.6694 | -0.0695 |
| 48 | 0.0498 | 0.3459 | 0.3079 | -0.1278 | 1.0000 | 0.4011 | 0.3261 | 0.2225 | -0.0872 |
| 49 | 0.5271 | 0.7319 | 0.8961 | -0.6978 | 0.4011 | 1.0000 | 0.0881 | 0.9590 | 0.1371 |
| 50 | -0.1642 | -0.0254 | 0.3029 | 0.1086 | 0.3261 | 0.0881 | 1.0000 | 0.0038 | -0.6180 |
| 51 | 0.5856 | 0.6357 | 0.8885 | -0.6694 | 0.2225 | 0.9590 | 0.0038 | 1.0000 | 0.2268 |
| 52 | -0.0836 | -0.1024 | -0.0608 | -0.0695 | -0.0872 | 0.1371 | -0.6180 | 0.2268 | 1.0000 |

T STATISTIC FOR 20 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.5492 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 2.5900 | 3.6945 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.3410 | -4.3727 | -3.8990 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 0.2232 | 1.6487 | 1.4475 | -0.5765 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 2.7739 | 4.8041 | 9.0274 | -4.3566 | 1.9582 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.7443 | -0.1137 | 1.4215 | 0.4885 | 1.5427 | 0.3955 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 3.2309 | 3.6831 | 8.6579 | -4.0296 | 1.0204 | 15.1298 | 0.0168 | 0.0000 | 0.0000 |
| 52 | -0.3750 | -0.4601 | -0.2724 | -0.3114 | -0.3916 | 0.6188 | -3.5158 | 1.0413 | 0.0000 |

T 0.05[20] = 2.086

T 0.01[20] = 2.845

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #1

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-------------|------------|----------|--------|
| 1 | 0.0007 | 0.0070 | 0.0170 | 0.0020 | 0.0170 | 0.0320 | 4400.0000 | 380.0000 | 2.9500 | 0.1300 |
| 2 | 0.0010 | 0.0050 | 0.0220 | 0.0020 | 0.0370 | 0.0900 | 4300.0000 | 2200.0000 | 53.7000 | 0.5400 |
| 3 | 0.0002 | 0.0060 | 0.0190 | 0.0100 | 0.0230 | 0.0400 | 400.0000 | 100.0000 | 6.9000 | 0.3200 |
| 4 | 0.0004 | 0.0040 | 0.0180 | 0.0040 | 0.0370 | 0.0480 | 900.0000 | 800.0000 | 14.3000 | 0.4000 |
| 5 | 0.0004 | 0.0060 | 0.0330 | 0.0050 | 0.0760 | 0.0630 | 1000.0000 | 3000.0000 | 33.2000 | 0.7400 |
| 6 | 0.0007 | 0.0110 | 0.0370 | 0.0080 | 0.0870 | 0.1200 | 1000.0000 | 4000.0000 | 150.0000 | 2.0400 |
| 7 | 0.0002 | 0.0090 | 0.0350 | 0.0060 | 0.0600 | 0.1300 | 230000.0000 | 31000.0000 | 108.0000 | 1.3500 |
| 8 | 0.0006 | 0.0060 | 0.2020 | 0.0030 | 0.0430 | 0.0800 | 13400.0000 | 3500.0000 | 57.9000 | 0.9700 |
| 9 | 0.0002 | 0.0050 | 0.0150 | 0.0030 | 0.0030 | 0.0140 | 4100.0000 | 380.0000 | 5.5600 | 0.1400 |
| 10 | 0.0006 | 0.0040 | 0.0130 | 0.0030 | 0.0050 | 0.0130 | 1060.0000 | 120.0000 | 4.3900 | 0.1500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #1

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|---------|--------|--------|---------|---------|--------|--------|
| 1 | 1.0000 | 0.0188 | 0.1342 | -0.4673 | 0.1168 | 0.1803 | -0.3824 | -0.3314 | 0.1887 | 0.1064 |
| 2 | 0.0188 | 1.0000 | 0.0766 | 0.5104 | 0.6844 | 0.7349 | 0.4259 | 0.5023 | 0.8481 | 0.8518 |
| 3 | 0.1342 | 0.0766 | 1.0000 | -0.1400 | 0.1677 | 0.2702 | 0.0172 | 0.0542 | 0.2322 | 0.2959 |
| 5 | -0.4673 | 0.5104 | -0.1400 | 1.0000 | 0.4149 | 0.3174 | 0.1552 | 0.1993 | 0.3699 | 0.4571 |
| 6 | 0.1168 | 0.6844 | 0.1677 | 0.4149 | 1.0000 | 0.8418 | 0.2540 | 0.3884 | 0.8041 | 0.8670 |
| 7 | 0.1803 | 0.7349 | 0.2702 | 0.3174 | 0.8418 | 1.0000 | 0.5718 | 0.6752 | 0.9202 | 0.8904 |
| 8 | -0.3824 | 0.4259 | 0.0172 | 0.1592 | 0.2540 | 0.5718 | 1.0000 | 0.9891 | 0.4530 | 0.3823 |
| 9 | -0.3314 | 0.5023 | 0.0542 | 0.1993 | 0.3884 | 0.6752 | 0.9891 | 1.0000 | 0.5632 | 0.5015 |
| 51 | 0.1887 | 0.8481 | 0.2322 | 0.3699 | 0.8041 | 0.9202 | 0.4530 | 0.5632 | 1.0000 | 0.9769 |
| 52 | 0.1064 | 0.8518 | 0.2959 | 0.4571 | 0.8670 | 0.8904 | 0.3823 | 0.5015 | 0.9769 | 1.0000 |

T STATISTIC FOR 8 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|--------|--------|--------|---------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 0.0532 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.3830 | 0.2174 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | -1.4950 | 1.6787 | -0.3999 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 0.3327 | 2.6548 | 0.4812 | 1.2899 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 0.5186 | 3.0648 | 0.7938 | 0.9466 | 4.4114 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -1.1706 | 1.3314 | 0.0486 | 0.4562 | 0.7427 | 1.9711 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.9935 | 1.6697 | 0.1535 | 0.5752 | 1.1922 | 2.5892 | 19.0130 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.5435 | 4.5275 | 0.6751 | 1.1281 | 3.8256 | 6.6488 | 1.4372 | 1.8279 | 0.0000 | 0.0000 |
| 52 | 0.3627 | 4.5997 | 0.8760 | 1.4537 | 4.9214 | 5.5342 | 1.1702 | 1.6397 | 12.9276 | 0.0000 |

T 0.05[8] = 2.306

T 0.01[8] = 3.355

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station 42

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|------------|------------|----------|---------|
| 1 | 0.0008 | 0.0070 | 0.0100 | 0.0670 | 0.0290 | 0.0660 | 3900.0000 | 1400.0000 | 9.6700 | 1.8200 |
| 2 | 0.0008 | 0.0050 | 0.1300 | 0.0320 | 0.0290 | 0.0970 | 2300.0000 | 400.0000 | 16.7000 | 12.9100 |
| 3 | 0.0004 | 0.0140 | 0.0240 | 0.0200 | 0.0320 | 0.6400 | 18000.0000 | 7700.0000 | 96.5000 | 10.9400 |
| 4 | 0.0006 | 0.0100 | 0.0180 | 0.0080 | 0.0310 | 0.0650 | 2800.0000 | 3900.0000 | 211.0000 | 9.2200 |
| 5 | 0.0007 | 0.0100 | 0.0230 | 0.0080 | 0.0310 | 0.0850 | 11300.0000 | 9100.0000 | 142.0000 | 25.2900 |
| 6 | 0.0006 | 0.0080 | 0.0240 | 0.0070 | 0.0580 | 0.0770 | 1800.0000 | 1500.0000 | 237.0000 | 21.7000 |
| 7 | 0.0010 | 0.0100 | 0.0340 | 0.0080 | 0.1000 | 0.1400 | 39000.0000 | 21000.0000 | 302.0000 | 13.4100 |
| 8 | 0.0004 | 0.0130 | 0.0270 | 0.0080 | 0.0550 | 0.1200 | 25000.0000 | 15000.0000 | 209.0000 | 9.5000 |
| 9 | 0.0002 | 0.0130 | 0.0120 | 0.0110 | 0.0510 | 0.0700 | 69000.0000 | 3200.0000 | 12.6000 | 1.9200 |
| 10 | 0.0004 | 0.0080 | 0.0140 | 0.0120 | 0.0130 | 0.0350 | 6700.0000 | 320.0000 | 12.0000 | 1.7500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #2

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 1.0000 | -0.6041 | 0.3794 | 0.3409 | 0.3040 | -0.1952 | -0.3769 | 0.2859 | 0.3494 | 0.3886 |
| 2 | -0.6041 | 1.0000 | -0.5204 | -0.5017 | 0.2786 | 0.5378 | 0.6205 | 0.4825 | 0.2394 | -0.0884 |
| 3 | 0.3794 | -0.5204 | 1.0000 | 0.2367 | -0.0240 | -0.0203 | -0.2379 | -0.1230 | -0.1675 | 0.2225 |
| 5 | 0.3409 | -0.5017 | 0.2367 | 1.0000 | -0.4339 | -0.0054 | -0.3110 | -0.3905 | -0.5831 | -0.3800 |
| 6 | 0.3040 | 0.2786 | -0.0240 | -0.4339 | 1.0000 | -0.0058 | 0.5293 | 0.7735 | 0.7394 | 0.2800 |
| 7 | -0.1952 | 0.5378 | -0.0203 | -0.0054 | -0.0058 | 1.0000 | 0.0497 | 0.2137 | 0.0144 | 0.0703 |
| 8 | -0.3769 | 0.6205 | -0.2379 | -0.3110 | 0.5293 | 0.0497 | 1.0000 | 0.4039 | -0.0028 | -0.3061 |
| 9 | 0.2859 | 0.4825 | -0.1230 | -0.3905 | 0.7735 | 0.2137 | 0.4039 | 1.0000 | 0.6995 | 0.2356 |
| 51 | 0.3494 | 0.2394 | -0.1675 | -0.5831 | 0.7394 | 0.0144 | -0.0028 | 0.6995 | 1.0000 | 0.5642 |
| 52 | 0.3886 | -0.0884 | 0.2225 | -0.3800 | 0.2800 | 0.0703 | -0.3061 | 0.2356 | 0.5642 | 1.0000 |

T STATISTIC FOR 8 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | -2.1438 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 1.1598 | -1.7237 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 1.0256 | -1.6405 | 0.6890 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 0.9024 | 0.8206 | -0.0678 | -1.3623 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | -0.5629 | 1.8044 | -0.0573 | -0.0154 | -0.0165 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -1.1510 | 2.2382 | -0.6928 | -0.9257 | 1.7644 | 0.1408 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.8438 | 1.5833 | -0.3506 | -1.1998 | 3.4518 | 0.6186 | 1.2489 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.0546 | 0.6975 | -0.4804 | -2.0303 | 3.1063 | 0.0407 | -0.0078 | 2.7587 | 0.0000 | 0.0000 |
| 52 | 1.1928 | -0.2515 | 0.6454 | -1.1619 | 0.8751 | 0.1995 | -0.9094 | 0.6856 | 1.9327 | 0.0000 |

T 0.05[8] = 2.306 T 0.01[8] = 3.355

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #8

CORRELATION MATRIX: VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.2528 | 0.2222 | 0.0294 | -0.2447 | 0.0135 | -0.3575 | -0.3660 | 0.1437 | 0.2201 |
| 2 | 0.2528 | 1.0000 | 0.6189 | 0.6136 | 0.2043 | 0.6819 | -0.2116 | -0.1981 | 0.9149 | 0.7392 |
| 3 | 0.2222 | 0.6189 | 1.0000 | 0.3258 | 0.0987 | 0.5388 | -0.2003 | -0.1004 | 0.7393 | 0.6749 |
| 5 | 0.0294 | 0.6136 | 0.3258 | 1.0000 | 0.3072 | 0.7930 | -0.1441 | -0.1094 | 0.6757 | 0.6349 |
| 6 | -0.2447 | 0.2043 | 0.0987 | 0.3072 | 1.0000 | 0.5801 | 0.6279 | 0.7082 | 0.0149 | -0.1642 |
| 7 | 0.0135 | 0.6819 | 0.5388 | 0.7930 | 0.5801 | 1.0000 | 0.0242 | 0.1869 | 0.6177 | 0.5738 |
| 8 | -0.3575 | -0.2116 | -0.2003 | -0.1441 | 0.6279 | 0.0242 | 1.0000 | 0.9349 | -0.3642 | -0.2493 |
| 9 | -0.3660 | -0.1981 | -0.1004 | -0.1094 | 0.7082 | 0.1869 | 0.9349 | 1.0000 | -0.3373 | -0.2608 |
| 51 | 0.1437 | 0.9149 | 0.7393 | 0.6757 | 0.0149 | 0.6177 | -0.3642 | -0.3373 | 1.0000 | 0.8273 |
| 52 | 0.2201 | 0.7392 | 0.6749 | 0.6349 | -0.1642 | 0.5738 | -0.2493 | -0.2608 | 0.8273 | 1.0000 |

T STATISTIC FOR 10 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 0.8261 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.7205 | 2.4916 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.0929 | 4.4247 | 1.0897 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | -0.7981 | 0.6600 | 0.3136 | 1.0208 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 0.0426 | 2.9481 | 2.0224 | 4.1169 | 2.2522 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -1.2104 | -0.6848 | -0.6465 | -0.4606 | 2.5510 | 0.0766 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -1.2438 | -0.6391 | -0.3191 | -0.3481 | 3.1723 | 0.6015 | 8.3292 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.4593 | 7.1679 | 3.4720 | 2.8988 | 0.0472 | 2.4836 | -1.2365 | -1.1331 | 0.0000 | 0.0000 |
| 52 | 0.7137 | 3.4705 | 2.8921 | 2.5985 | -0.5262 | 2.2157 | -0.8142 | -0.8544 | 4.6568 | 0.0000 |

T 0.05[10] = 2.228

T 0.01[10] = 3.169

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #9

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0002 | 0.0020 | 0.0050 | 0.0020 | 0.0030 | 0.0010 | 120.0000 | 120.0000 | 34.0000 | 1.9200 |
| 2 | 0.0002 | 0.0060 | 0.0060 | 0.0020 | 0.0070 | 0.0040 | 940.0000 | 3800.0000 | 15.5000 | 2.6300 |
| 3 | 0.0003 | 0.0140 | 0.0140 | 0.0050 | 0.0260 | 0.0440 | 1700.0000 | 5000.0000 | 79.8000 | 2.5000 |
| 4 | 0.0002 | 0.0050 | 0.0090 | 0.0030 | 0.0130 | 0.0180 | 1700.0000 | 2700.0000 | 27.7000 | 2.1800 |
| 5 | 0.0003 | 0.0100 | 0.0140 | 0.0060 | 0.0100 | 0.0350 | 100.0000 | 700.0000 | 148.0000 | 12.1900 |
| 6 | 0.0002 | 0.0120 | 0.0140 | 0.0060 | 0.0120 | 0.0290 | 100.0000 | 600.0000 | 180.0000 | 15.9300 |
| 7 | 0.0003 | 0.0080 | 0.0140 | 0.0060 | 0.0100 | 0.0340 | 300.0000 | 800.0000 | 287.0000 | 29.4700 |
| 8 | 0.0002 | 0.0050 | 0.0120 | 0.0040 | 0.0050 | 0.0160 | 100.0000 | 2400.0000 | 173.0000 | 17.5400 |
| 9 | 0.0002 | 0.0100 | 0.0160 | 0.0030 | 0.0120 | 0.0410 | 2100.0000 | 1780.0000 | 59.8000 | 4.6100 |
| 10 | 0.0002 | 0.0010 | 0.0050 | 0.0020 | 0.0030 | 0.0030 | 110.0000 | 120.0000 | 8.3600 | 1.6200 |
| 11 | 0.0002 | 0.0050 | 0.1300 | 0.0010 | 0.0060 | 0.0100 | 700.0000 | 1020.0000 | 105.0000 | 7.1200 |
| 12 | 0.0003 | 0.0020 | 0.0070 | 0.0020 | 0.0030 | 0.0030 | 60.0000 | 40.0000 | 3.0800 | 1.6700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #9

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.3124 | -0.1755 | 0.5034 | 0.3515 | 0.4218 | -0.1257 | 0.0209 | 0.3258 | 0.2658 |
| 2 | 0.3124 | 1.0000 | -0.0351 | 0.7369 | 0.8667 | 0.9071 | 0.4489 | 0.4990 | 0.4628 | 0.2987 |
| 3 | -0.1755 | -0.0351 | 1.0000 | -0.3427 | -0.0812 | -0.0842 | 0.0500 | -0.0876 | 0.1136 | 0.0231 |
| 5 | 0.5034 | 0.7369 | -0.3427 | 1.0000 | 0.5356 | 0.7659 | -0.1074 | 0.0946 | 0.7754 | 0.6946 |
| 6 | 0.3515 | 0.8667 | -0.0812 | 0.5356 | 1.0000 | 0.8003 | 0.6514 | 0.6991 | 0.1794 | 0.0152 |
| 7 | 0.4218 | 0.9071 | -0.0842 | 0.7659 | 0.8003 | 1.0000 | 0.4613 | 0.3439 | 0.5480 | 0.4057 |
| 8 | -0.1257 | 0.4489 | 0.0500 | -0.1074 | 0.6514 | 0.4613 | 1.0000 | 0.6759 | -0.3004 | -0.3742 |
| 9 | 0.0209 | 0.4990 | -0.0876 | 0.0946 | 0.6991 | 0.3439 | 0.6759 | 1.0000 | -0.1233 | -0.1945 |
| 51 | 0.3258 | 0.4628 | 0.1136 | 0.7754 | 0.1794 | 0.5480 | -0.3004 | -0.1233 | 1.0000 | 0.9666 |
| 52 | 0.2658 | 0.2987 | 0.0231 | 0.6946 | 0.0152 | 0.4057 | -0.3742 | -0.1945 | 0.9666 | 1.0000 |

T STATISTIC FOR 10 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|---------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.0400 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | -0.5638 | -0.1112 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 1.8422 | 3.4471 | -1.1535 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 1.1873 | 5.4939 | -0.2578 | 2.0056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 1.4711 | 6.8139 | -0.2672 | 3.7670 | 4.2204 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.4005 | 1.5885 | 0.1533 | -0.3416 | 2.7148 | 1.6440 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.0660 | 1.8208 | -0.2782 | 0.3007 | 3.0921 | 1.1581 | 2.8999 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.0897 | 1.6512 | 0.3615 | 3.8836 | 0.5767 | 2.0715 | -0.9961 | -0.3930 | 0.0000 | 0.0000 |
| 52 | 0.8720 | 0.9896 | 0.0730 | 3.0536 | 0.0480 | 1.4036 | -1.2759 | -0.6269 | 11.9338 | 0.0000 |

T 0.05[10] = 2.228

T 0.01[10] = 3.169

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0002 | 0.0020 | 0.0040 | 0.0010 | 0.0030 | 0.0030 | 20.0000 | 40.0000 | 19.1000 | 2.4900 |
| 2 | 0.0002 | 0.0020 | 0.0080 | 0.0010 | 0.0040 | 0.0080 | 160.0000 | 460.0000 | 13.9000 | 2.6700 |
| 3 | 0.0002 | 0.0020 | 0.0070 | 0.0010 | 0.0030 | 0.0460 | 1300.0000 | 3200.0000 | 7.8700 | 2.5100 |
| 4 | 0.0002 | 0.0120 | 0.0130 | 0.0050 | 0.0070 | 0.0300 | 600.0000 | 600.0000 | 243.0000 | 12.8400 |
| 5 | 0.0002 | 0.0050 | 0.0120 | 0.0040 | 0.0170 | 0.0310 | 100.0000 | 900.0000 | 186.0000 | 12.1100 |
| 6 | 0.0004 | 0.0100 | 0.0180 | 0.0080 | 0.0120 | 0.0320 | 300.0000 | 800.0000 | 285.0000 | 21.2500 |
| 7 | 0.0002 | 0.0060 | 0.0130 | 0.0040 | 0.0080 | 0.0150 | 500.0000 | 1400.0000 | 160.0000 | 14.1200 |
| 8 | 0.0006 | 0.0040 | 0.0170 | 0.0020 | 0.0120 | 0.0160 | 660.0000 | 820.0000 | 54.6000 | 4.3100 |
| 9 | 0.0002 | 0.0040 | 0.0130 | 0.0010 | 0.0060 | 0.0130 | 860.0000 | 1320.0000 | 122.0000 | 8.2600 |
| 10 | 0.0002 | 0.0010 | 0.0080 | 0.0010 | 0.0030 | 0.0170 | 60.0000 | 40.0000 | 12.1000 | 2.1000 |
| 11 | 0.0002 | 0.0040 | 0.0110 | 0.0010 | 0.0060 | 0.0130 | 780.0000 | 940.0000 | 48.4000 | 7.4700 |
| 12 | 0.0003 | 0.0030 | 0.0130 | 0.0020 | 0.0030 | 0.0190 | 540.0000 | 700.0000 | 75.9000 | 6.7800 |
| 13 | 0.0004 | 0.0020 | 0.0080 | 0.0010 | 0.0040 | 0.0140 | 50.0000 | 30.0000 | 20.3000 | 2.3600 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #10

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| 1 | 1.0000 | 0.0719 | 0.5549 | 0.1784 | 0.3329 | -0.0166 | -0.0388 | -0.1724 | 0.0287 | 0.0258 |
| 2 | 0.0719 | 1.0000 | 0.6671 | 0.8690 | 0.5012 | 0.3937 | 0.1075 | 0.0212 | 0.9237 | 0.8553 |
| 3 | 0.5549 | 0.6671 | 1.0000 | 0.6935 | 0.6735 | 0.2078 | 0.1849 | 0.0377 | 0.7176 | 0.7343 |
| 5 | 0.1784 | 0.8690 | 0.6935 | 1.0000 | 0.6337 | 0.4589 | -0.1149 | -0.0010 | 0.9306 | 0.9316 |
| 6 | 0.3329 | 0.5012 | 0.6735 | 0.6337 | 1.0000 | 0.3085 | -0.1110 | 0.0328 | 0.6513 | 0.6331 |
| 7 | -0.0166 | 0.3937 | 0.2078 | 0.4589 | 0.3085 | 1.0000 | 0.4750 | 0.6657 | 0.4078 | 0.3691 |
| 8 | -0.0388 | 0.1075 | 0.1849 | -0.1149 | -0.1110 | 0.4750 | 1.0000 | 0.8502 | -0.0118 | 0.0221 |
| 9 | -0.1724 | 0.0212 | 0.0377 | -0.0010 | 0.0328 | 0.6657 | 0.8502 | 1.0000 | 0.0243 | 0.0919 |
| 51 | 0.0287 | 0.9237 | 0.7176 | 0.9306 | 0.6513 | 0.4078 | -0.0118 | 0.0243 | 1.0000 | 0.9571 |
| 52 | 0.0258 | 0.8553 | 0.7343 | 0.9316 | 0.6331 | 0.3691 | 0.0221 | 0.0919 | 0.9571 | 1.0000 |

T STATISTIC FOR 11 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|--------|---------|---------|--------|---------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 0.2390 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 2.2122 | 2.9700 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.6012 | 5.8257 | 3.1923 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 1.1709 | 1.9207 | 3.0216 | 2.7170 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | -0.0550 | 1.4205 | 0.7045 | 1.7132 | 1.0757 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.1286 | 0.3585 | 0.6241 | -0.3836 | -0.3705 | 1.7903 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.5803 | 0.0703 | 0.1251 | -0.0034 | 0.1090 | 2.9586 | 5.3567 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.0951 | 7.9992 | 3.4173 | 8.4332 | 2.8470 | 1.4813 | -0.0390 | 0.0805 | 0.0000 | 0.0000 |
| 52 | 0.0856 | 5.4737 | 3.5875 | 8.5015 | 2.7124 | 1.3171 | 0.0735 | 0.3061 | 10.9500 | 0.0000 |

T 0.05[11] = 2.201

T 0.01[11] = 3.106

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|--------|
| 1 | 0.0003 | 0.0040 | 0.0120 | 0.0040 | 0.0060 | 0.0520 | 420.0000 | 440.0000 | 4.6900 | 0.1100 |
| 2 | 0.0006 | 0.0080 | 0.0260 | 0.0160 | 0.0700 | 0.1100 | 2700.0000 | 3600.0000 | 27.0000 | 0.8800 |
| 3 | 0.0017 | 0.0230 | 0.0700 | 0.0180 | 0.3100 | 0.4300 | 4100.0000 | 14000.0000 | 447.0000 | 1.7600 |
| 4 | 0.0005 | 0.0050 | 0.0210 | 0.0050 | 0.0600 | 0.1500 | 3300.0000 | 17000.0000 | 67.3000 | 0.6200 |
| 5 | 0.0002 | 0.0070 | 0.0170 | 0.0040 | 0.0150 | 0.0440 | 500.0000 | 1000.0000 | 55.6000 | 0.9600 |
| 6 | 0.0004 | 0.0110 | 0.0170 | 0.0060 | 0.0490 | 0.0750 | 500.0000 | 900.0000 | 116.0000 | 4.4400 |
| 7 | 0.0003 | 0.0080 | 0.0160 | 0.0050 | 0.0350 | 0.0500 | 400.0000 | 1200.0000 | 75.3000 | 3.1400 |
| 8 | 0.0005 | 0.0060 | 0.0180 | 0.0080 | 0.0390 | 0.0790 | 5900.0000 | 7700.0000 | 84.2000 | 1.3900 |
| 9 | 0.0005 | 0.0090 | 0.0180 | 0.0070 | 0.1200 | 0.0910 | 4500.0000 | 6100.0000 | 49.6000 | 1.3900 |
| 10 | 0.0020 | 0.0030 | 0.0110 | 0.0020 | 0.0080 | 0.0140 | 1460.0000 | 180.0000 | 2.6200 | 0.1300 |
| 11 | 0.0005 | 0.0070 | 0.0160 | 0.0030 | 0.0140 | 0.0300 | 420.0000 | 340.0000 | 23.0000 | 0.1000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #4

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|--------|---------|---------|--------|---------|---------|---------|---------|
| 1 | 1.0000 | -0.0239 | 0.6992 | -0.1624 | 0.5342 | 0.7817 | 0.4027 | 0.4906 | 0.5713 | 0.3945 |
| 2 | -0.0239 | 1.0000 | 0.4069 | 0.8155 | 0.1366 | 0.4947 | -0.1082 | -0.1358 | 0.2948 | 0.1933 |
| 3 | 0.6992 | 0.4069 | 1.0000 | 0.1659 | 0.7578 | 0.8015 | 0.3663 | 0.3471 | 0.7603 | 0.4067 |
| 5 | -0.1624 | 0.8155 | 0.1659 | 1.0000 | -0.2328 | 0.2189 | -0.1054 | -0.1713 | -0.0960 | -0.2311 |
| 6 | 0.5342 | 0.1366 | 0.7578 | -0.2328 | 1.0000 | 0.6610 | 0.4838 | 0.4908 | 0.6643 | 0.6240 |
| 7 | 0.7817 | 0.4947 | 0.8015 | 0.2189 | 0.6610 | 1.0000 | 0.2626 | 0.3250 | 0.6607 | 0.5262 |
| 8 | 0.4027 | -0.1082 | 0.3663 | -0.1054 | 0.4838 | 0.2626 | 1.0000 | 0.9778 | -0.0920 | -0.1063 |
| 9 | 0.4906 | -0.1358 | 0.3471 | -0.1713 | 0.4908 | 0.3250 | 0.9778 | 1.0000 | -0.0915 | -0.0566 |
| 51 | 0.5713 | 0.2948 | 0.7603 | -0.0960 | 0.6643 | 0.6607 | -0.0920 | -0.0915 | 1.0000 | 0.8022 |
| 52 | 0.3945 | 0.1933 | 0.4067 | -0.2311 | 0.6240 | 0.5262 | -0.1063 | -0.0566 | 0.8022 | 1.0000 |

T STATISTIC FOR 9 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|--------|---------|--------|--------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | -0.0717 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 2.9342 | 1.3363 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | -0.4939 | 4.2272 | 0.5046 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 1.8955 | 0.4136 | 3.4837 | -0.7180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 3.7603 | 1.7076 | 4.0216 | 0.6731 | 2.6429 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 1.3197 | -0.3264 | 1.1809 | -0.3181 | 1.6583 | 0.8166 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.6891 | -0.4111 | 1.1105 | -0.5217 | 1.6900 | 1.0311 | 14.0013 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 2.0881 | 0.9255 | 3.5118 | -0.2892 | 2.6660 | 2.6407 | -0.2771 | -0.2757 | 0.0000 | 0.0000 |
| 52 | 1.2881 | 0.5911 | 1.3357 | -0.7126 | 2.3958 | 1.8562 | -0.3208 | -0.1702 | 4.0307 | 0.0000 |

T 0.05[9] = 2.262

T 0.01[9] = 3.250

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #5

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-------------|------------|----------|--------|
| 1 | 0.0005 | 0.0070 | 0.0150 | 0.0190 | 0.0060 | 0.0340 | 2600.0000 | 700.0000 | 7.8000 | 0.2300 |
| 2 | 0.0007 | 0.0110 | 0.0170 | 0.0090 | 0.0330 | 0.0560 | 60000.0000 | 13600.0000 | 28.4000 | 0.5200 |
| 3 | 0.0018 | 0.0200 | 0.0720 | 0.0150 | 0.2000 | 0.3200 | 240000.0000 | 80000.0000 | 269.0000 | 1.7400 |
| 4 | 0.0016 | 0.0430 | 0.0510 | 0.0190 | 0.1800 | 0.2500 | 6100.0000 | 32000.0000 | 285.0000 | 3.2500 |
| 5 | 0.0006 | 0.0110 | 0.0210 | 0.0080 | 0.0750 | 0.0820 | 1000.0000 | 1000.0000 | 82.3000 | 6.1700 |
| 6 | 0.0004 | 0.0090 | 0.0130 | 0.0060 | 0.0330 | 0.0500 | 2200.0000 | 1800.0000 | 84.0000 | 6.8700 |
| 7 | 0.0006 | 0.0100 | 0.0160 | 0.0060 | 0.0460 | 0.0580 | 2100.0000 | 3100.0000 | 67.5000 | 4.8400 |
| 8 | 0.0009 | 0.0070 | 0.0260 | 0.0080 | 0.0650 | 0.0740 | 75000.0000 | 36000.0000 | 70.3000 | 3.7600 |
| 9 | 0.0007 | 0.0070 | 0.0260 | 0.0080 | 0.0700 | 0.0890 | 5200.0000 | 6700.0000 | 47.9000 | 2.4200 |
| 10 | 0.0002 | 0.0210 | 0.0200 | 0.0040 | 0.0070 | 0.0400 | 1360.0000 | 220.0000 | 9.6200 | 0.3000 |
| 11 | 0.0005 | 0.0390 | 0.0170 | 0.0150 | 0.3050 | 0.0490 | 4300.0000 | 240.0000 | 9.5500 | 0.2500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #5

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|---------|--------|---------|
| 1 | 1.0000 | 0.3782 | 0.9392 | 0.5646 | 0.9562 | 0.9672 | 0.7056 | 0.2963 | 0.9243 | -0.0065 |
| 2 | 0.3782 | 1.0000 | 0.3956 | 0.5314 | 0.3373 | 0.4204 | -0.0187 | 0.1721 | 0.4395 | -0.2919 |
| 3 | 0.9392 | 0.3956 | 1.0000 | 0.4750 | 0.9398 | 0.9872 | 0.7725 | 0.9152 | 0.9989 | -0.0958 |
| 5 | 0.5646 | 0.5314 | 0.4750 | 1.0000 | 0.4071 | 0.4939 | 0.2349 | 0.3665 | 0.4436 | -0.4080 |
| 6 | 0.9562 | 0.3373 | 0.9398 | 0.4071 | 1.0000 | 0.9742 | 0.6308 | 0.8350 | 0.9672 | 0.1767 |
| 7 | 0.9672 | 0.4204 | 0.9872 | 0.4939 | 0.9742 | 1.0000 | 0.7224 | 0.8945 | 0.9526 | 0.0105 |
| 8 | 0.7056 | -0.0187 | 0.7725 | 0.2349 | 0.6308 | 0.7224 | 1.0000 | 0.9226 | 0.5501 | -0.1763 |
| 9 | 0.2963 | 0.1721 | 0.9152 | 0.3665 | 0.8350 | 0.8945 | 0.9226 | 1.0000 | 0.7800 | -0.0834 |
| 51 | 0.9243 | 0.4395 | 0.9989 | 0.4436 | 0.9672 | 0.9526 | 0.5501 | 0.7800 | 1.0000 | 0.2297 |
| 52 | -0.0065 | -0.2919 | -0.0958 | -0.4080 | 0.1767 | 0.0105 | -0.1763 | -0.0834 | 0.2297 | 1.0000 |

T STATISTIC FOR 9 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.2255 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 8.2027 | 1.2924 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 2.0522 | 1.8819 | 1.6192 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 9.7988 | 1.0748 | 8.2525 | 1.3370 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 11.4282 | 1.3898 | 18.5947 | 1.7042 | 12.9467 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 2.9874 | -0.0561 | 3.6498 | 0.7251 | 2.4391 | 3.1344 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 6.0621 | 0.5241 | 6.8149 | 1.1816 | 4.5530 | 6.0012 | 7.1755 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 7.2669 | 1.4680 | 6.1557 | 1.4850 | 11.4089 | 9.3959 | 1.9761 | 3.7392 | 0.0000 | 0.0000 |
| 52 | -0.0195 | -0.9157 | -0.2888 | -1.3409 | 0.5384 | 0.0315 | -0.5375 | -0.2511 | 0.7079 | 0.0000 |

T 0.05[9] = 2.262

T 0.01[9] = 3.250

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #6

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0030 | 0.0080 | 0.0010 | 0.0030 | 0.0380 | 160.0000 | 100.0000 | 11.9000 | 2.9100 |
| 2 | 0.0002 | 0.0030 | 0.0070 | 0.0020 | 0.0060 | 0.0150 | 580.0000 | 860.0000 | 11.9000 | 3.5300 |
| 3 | 0.0002 | 0.0040 | 0.0090 | 0.0030 | 0.0090 | 0.0150 | 9200.0000 | 4200.0000 | 9.8700 | 4.5700 |
| 4 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0130 | 0.0250 | 1900.0000 | 1740.0000 | 19.1000 | 4.9500 |
| 5 | 0.0003 | 0.0080 | 0.0130 | 0.0060 | 0.0130 | 0.0340 | 700.0000 | 1200.0000 | 227.0000 | 19.4400 |
| 6 | 0.0004 | 0.0090 | 0.0140 | 0.0060 | 0.0210 | 0.0380 | 400.0000 | 2000.0000 | 230.0000 | 21.7200 |
| 7 | 0.0004 | 0.0120 | 0.0140 | 0.0070 | 0.0200 | 0.0480 | 600.0000 | 2200.0000 | 215.0000 | 24.5300 |
| 8 | 0.0002 | 0.0060 | 0.0130 | 0.0050 | 0.0080 | 0.0240 | 1400.0000 | 2300.0000 | 166.0000 | 28.0200 |
| 9 | 0.0003 | 0.0090 | 0.0200 | 0.0040 | 0.0120 | 0.0370 | 600.0000 | 980.0000 | 144.0000 | 16.2300 |
| 10 | 0.0003 | 0.0080 | 0.0200 | 0.0040 | 0.0140 | 0.0340 | 400.0000 | 580.0000 | 141.0000 | 16.3100 |
| 11 | 0.0002 | 0.0040 | 0.0050 | 0.0040 | 0.0030 | 0.0060 | 300.0000 | 340.0000 | 7.6900 | 2.3600 |
| 12 | 0.0003 | 0.0050 | 0.0070 | 0.0050 | 0.0080 | 0.0420 | 30.0000 | 30.0000 | 17.3000 | 2.5900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #6

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.2530 | 0.1229 | 0.0000 | 0.1423 | 0.6848 | -0.3552 | -0.3124 | 0.2107 | 0.0891 |
| 2 | 0.2530 | 1.0000 | 0.7381 | 0.8299 | 0.8026 | 0.6548 | -0.2521 | 0.1468 | 0.8864 | 0.8075 |
| 3 | 0.1229 | 0.7381 | 1.0000 | 0.3777 | 0.6307 | 0.5017 | -0.1444 | 0.1023 | 0.7098 | 0.6993 |
| 5 | 0.0000 | 0.8299 | 0.3777 | 1.0000 | 0.6570 | 0.4521 | -0.2076 | 0.1770 | 0.7998 | 0.7347 |
| 6 | 0.1423 | 0.8026 | 0.6307 | 0.6570 | 1.0000 | 0.5832 | -0.0628 | 0.3657 | 0.7711 | 0.6667 |
| 7 | 0.6848 | 0.6548 | 0.5017 | 0.4521 | 0.5832 | 1.0000 | -0.4043 | -0.1826 | 0.5500 | 0.4459 |
| 8 | -0.3552 | -0.2521 | -0.1444 | -0.2076 | -0.0628 | -0.4043 | 1.0000 | 0.8201 | -0.2777 | -0.1938 |
| 9 | -0.3124 | 0.1468 | 0.1023 | 0.1770 | 0.3657 | -0.1826 | 0.8201 | 1.0000 | 0.1962 | 0.3125 |
| 51 | 0.2107 | 0.8864 | 0.7098 | 0.7998 | 0.7711 | 0.5500 | -0.2777 | 0.1962 | 1.0000 | 0.9350 |
| 52 | 0.0891 | 0.8075 | 0.6993 | 0.7347 | 0.6667 | 0.4459 | -0.1938 | 0.3125 | 0.9350 | 1.0000 |

T STATISTIC FOR 10 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 0.8269 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.3917 | 3.4593 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.0000 | 4.7043 | 1.2899 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 0.4545 | 4.2554 | 2.5699 | 2.7560 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 2.9715 | 2.7393 | 1.8340 | 1.6829 | 2.2705 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -1.2018 | -0.8237 | -0.4613 | -0.6713 | -0.1998 | -1.3977 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -1.0399 | 0.4693 | 0.3252 | 0.5688 | 1.2424 | -0.5873 | 4.5316 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.6815 | 6.0541 | 3.1867 | 4.2141 | 3.8303 | 2.0226 | -0.9141 | 0.6329 | 0.0000 | 0.0000 |
| 52 | 0.2830 | 4.3283 | 3.0937 | 3.4245 | 2.8286 | 1.5755 | -0.6248 | 1.0002 | 8.3346 | 0.0000 |

T 0.05[10] = 2.228

T 0.01[10] = 3.169

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #7

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0002 | 0.0020 | 0.0070 | 0.0010 | 0.0030 | 0.0090 | 200.0000 | 60.0000 | 9.2300 | 3.1100 |
| 2 | 0.0032 | 0.0020 | 0.0090 | 0.0020 | 0.0080 | 0.0100 | 540.0000 | 960.0000 | 9.1500 | 3.4400 |
| 3 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0110 | 0.0290 | 1660.0000 | 2940.0000 | 8.2000 | 5.0300 |
| 4 | 0.0002 | 0.0030 | 0.0080 | 0.0020 | 0.0110 | 0.0200 | 2960.0000 | 2600.0000 | 21.9000 | 4.8800 |
| 5 | 0.0002 | 0.0100 | 0.0190 | 0.0100 | 0.0140 | 0.0700 | 600.0000 | 1900.0000 | 190.0000 | 32.4000 |
| 6 | 0.0006 | 0.0160 | 0.0220 | 0.0100 | 0.0190 | 0.0510 | 700.0000 | 2100.0000 | 399.0000 | 45.8100 |
| 7 | 0.0004 | 0.0100 | 0.0180 | 0.0080 | 0.0140 | 0.0380 | 200.0000 | 1400.0000 | 268.0000 | 42.0100 |
| 8 | 0.0003 | 0.0060 | 0.0110 | 0.0050 | 0.0080 | 0.0300 | 1000.0000 | 3200.0000 | 0.0000 | 30.0400 |
| 9 | 0.0002 | 0.0070 | 0.0180 | 0.0030 | 0.0120 | 0.0300 | 780.0000 | 960.0000 | 92.2000 | 13.6600 |
| 10 | 0.0002 | 0.0060 | 0.0170 | 0.0040 | 0.0110 | 0.0300 | 380.0000 | 1100.0000 | 149.0000 | 17.2600 |
| 11 | 0.0002 | 0.0020 | 0.0060 | 0.0040 | 0.0030 | 0.0030 | 120.0000 | 100.0000 | 5.7000 | 2.7000 |
| 12 | 0.0003 | 0.0020 | 0.0060 | 0.0050 | 0.0040 | 0.0040 | 20.0000 | 30.0000 | 13.9000 | 2.7600 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|--------|---------|---------|
| 1 | 1.0000 | 0.7698 | 0.5144 | 0.6799 | 0.5653 | 0.3642 | -0.1686 | 0.1988 | 0.7784 | 0.7428 |
| 2 | 0.7698 | 1.0000 | 0.9168 | 0.8533 | 0.8679 | 0.8313 | -0.1024 | 0.3281 | 0.9462 | 0.9341 |
| 3 | 0.5144 | 0.9168 | 1.0000 | 0.7125 | 0.8856 | 0.8563 | -0.1136 | 0.2710 | 0.8767 | 0.8328 |
| 5 | 0.6799 | 0.8533 | 0.7125 | 1.0000 | 0.6365 | 0.7654 | -0.2892 | 0.1772 | 0.8194 | 0.8649 |
| 6 | 0.5653 | 0.8679 | 0.8856 | 0.6365 | 1.0000 | 0.8404 | 0.2739 | 0.5576 | 0.8290 | 0.7675 |
| 7 | 0.3642 | 0.8313 | 0.8563 | 0.7654 | 0.8404 | 1.0000 | 0.0983 | 0.5173 | 0.7224 | 0.8022 |
| 8 | -0.1686 | -0.1024 | -0.1136 | -0.2892 | 0.2739 | 0.0983 | 1.0000 | 0.7062 | -0.1937 | -0.1493 |
| 9 | 0.1988 | 0.3281 | 0.2710 | 0.1772 | 0.5576 | 0.5173 | 0.7062 | 1.0000 | 0.1402 | 0.4053 |
| 51 | 0.7784 | 0.9462 | 0.8767 | 0.8194 | 0.8290 | 0.7224 | -0.1937 | 0.1402 | 1.0000 | 0.8574 |
| 52 | 0.7428 | 0.9341 | 0.8328 | 0.8649 | 0.7675 | 0.8022 | -0.1493 | 0.4053 | 0.8574 | 1.0000 |

T STATISTIC FOR 10 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.8137 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 1.8967 | 7.2597 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 2.9319 | 5.1756 | 3.2108 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 2.1673 | 5.5255 | 6.0310 | 2.5095 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 1.2367 | 4.7300 | 5.2427 | 3.7608 | 4.9037 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.5409 | -0.3256 | -0.3617 | -0.9552 | 0.9007 | 0.3124 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.6416 | 1.0982 | 0.8903 | 0.5694 | 2.1241 | 1.9115 | 3.1545 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 3.9212 | 9.2441 | 5.7626 | 4.5201 | 4.6884 | 3.3038 | -0.6244 | 0.4477 | 0.0000 | 0.0000 |
| 52 | 3.5088 | 8.2761 | 4.7570 | 5.4488 | 3.7858 | 4.2488 | -0.4774 | 1.4022 | 5.2689 | 0.0000 |

T 0.05[10] = 2.228

T 0.01[10] = 3.169

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|---------|
| 1 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0040 | 0.0050 | 120.0000 | 100.0000 | 8.9600 | 0.4000 |
| 2 | 0.0002 | 0.0040 | 0.0100 | 0.0020 | 0.0020 | 0.0170 | 6200.0000 | 15200.0000 | 11.7000 | 0.5400 |
| 3 | 0.0002 | 0.0030 | 0.0130 | 0.0030 | 0.0220 | 0.0390 | 1800.0000 | 7500.0000 | 23.4000 | 0.9000 |
| 4 | 0.0002 | 0.0030 | 0.0080 | 0.0030 | 0.0170 | 0.0120 | 3300.0000 | 3700.0000 | 5.0900 | 0.4900 |
| 5 | 0.0002 | 0.0060 | 0.0120 | 0.0040 | 0.0130 | 0.0200 | 200.0000 | 600.0000 | 108.0000 | 1.9100 |
| 6 | 0.0003 | 0.0080 | 0.0130 | 0.0060 | 0.0190 | 0.0350 | 200.0000 | 400.0000 | 110.0000 | 4.3900 |
| 7 | 0.0003 | 0.0070 | 0.0140 | 0.0060 | 0.0070 | 0.0370 | 800.0000 | 1000.0000 | 125.0000 | 11.4300 |
| 8 | 0.0002 | 0.0060 | 0.0160 | 0.0050 | 0.0100 | 0.0260 | 500.0000 | 1800.0000 | 108.0000 | 7.9500 |
| 9 | 0.0003 | 0.0050 | 0.0160 | 0.0010 | 0.0100 | 0.0170 | 320.0000 | 420.0000 | 94.5000 | 4.9700 |
| 10 | 0.0002 | 0.0020 | 0.0050 | 0.0010 | 0.0030 | 0.0010 | 140.0000 | 50.0000 | 3.6800 | 0.3300 |
| 11 | 0.0002 | 0.0040 | 0.0150 | 0.0010 | 0.0080 | 0.0090 | 1800.0000 | 2620.0000 | 49.0000 | 4.0300 |
| 12 | 0.0004 | 0.0030 | 0.0110 | 0.0010 | 0.0050 | 0.0020 | 80.0000 | 40.0000 | 1.3500 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982

Station #2

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 31 | 32 |
|----|--------|--------|--------|--------|--------|--------|------------|------------|----------|---------|
| 1 | 0.0007 | 0.0020 | 0.0040 | 0.0010 | 0.0110 | 0.0050 | 340.0000 | 60.0000 | 15.5000 | 4.1000 |
| 2 | 0.0006 | 0.0010 | 0.0150 | 0.0010 | 0.0130 | 0.0290 | 1120.0000 | 4600.0000 | 6.0700 | 5.0600 |
| 3 | 0.0005 | 0.0110 | 0.0170 | 0.0030 | 0.0230 | 0.0480 | 500.0000 | 3100.0000 | 286.0000 | 15.3400 |
| 4 | 0.0005 | 0.0100 | 0.0220 | 0.0070 | 0.0330 | 0.0540 | 19000.0000 | 53000.0000 | 220.0000 | 33.3500 |
| 5 | 0.0005 | 0.0100 | 0.0160 | 0.0080 | 0.0200 | 0.0420 | 1000.0000 | 1000.0000 | 288.0000 | 37.3900 |
| 6 | 0.0004 | 0.0080 | 0.1300 | 0.0060 | 0.0130 | 0.0270 | 500.0000 | 3500.0000 | 163.0000 | 32.7700 |
| 7 | 0.0002 | 0.0090 | 0.0150 | 0.0040 | 0.0160 | 0.0330 | 1240.0000 | 1220.0000 | 51.6000 | 11.1000 |
| 8 | 0.0002 | 0.0070 | 0.0190 | 0.0040 | 0.0160 | 0.0400 | 940.0000 | 1140.0000 | 56.9000 | 13.8300 |
| 9 | 0.0002 | 0.0050 | 0.0070 | 0.0010 | 0.0030 | 0.0050 | 520.0000 | 100.0000 | 2.4300 | 2.5700 |
| 10 | 0.0002 | 0.0060 | 0.0190 | 0.0030 | 0.0130 | 0.0290 | 800.0000 | 1100.0000 | 65.5000 | 12.5200 |
| 11 | 0.0002 | 0.0040 | 0.0080 | 0.0040 | 0.0030 | 0.0070 | 140.0000 | 80.0000 | 8.0000 | 3.7900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #3

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|--------|--------|--------|---------|--------|--------|--------|
| 1 | 1.0000 | -0.1536 | 0.0253 | 0.0896 | 0.3892 | 0.1454 | 0.2032 | 0.2440 | 0.3266 | 0.1704 |
| 2 | -0.1536 | 1.0000 | 0.2238 | 0.8886 | 0.6786 | 0.7486 | 0.3448 | 0.3368 | 0.8319 | 0.6618 |
| 3 | 0.0253 | 0.2238 | 1.0000 | 0.2960 | 0.0461 | 0.0997 | -0.0350 | 0.0191 | 0.2488 | 0.6721 |
| 5 | 0.0896 | 0.8886 | 0.2960 | 1.0000 | 0.6891 | 0.7456 | 0.3378 | 0.3543 | 0.9328 | 0.7666 |
| 6 | 0.3892 | 0.6786 | 0.0461 | 0.6891 | 1.0000 | 0.9113 | 0.7239 | 0.7297 | 0.7512 | 0.5133 |
| 7 | 0.1454 | 0.7486 | 0.0997 | 0.7456 | 0.9113 | 1.0000 | 0.5176 | 0.5256 | 0.7546 | 0.5613 |
| 8 | 0.2032 | 0.3448 | -0.0350 | 0.3378 | 0.7239 | 0.5176 | 1.0000 | 0.9952 | 0.3399 | 0.2194 |
| 9 | 0.2440 | 0.3368 | 0.0191 | 0.3543 | 0.7297 | 0.5256 | 0.9952 | 1.0000 | 0.3614 | 0.2366 |
| 51 | 0.3266 | 0.8319 | 0.2488 | 0.9328 | 0.7512 | 0.7546 | 0.3399 | 0.3614 | 1.0000 | 0.7700 |
| 52 | 0.1704 | 0.6618 | 0.6721 | 0.7666 | 0.5133 | 0.5613 | 0.2194 | 0.2366 | 0.7700 | 1.0000 |

T STATISTIC FOR 9 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|--------|--------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | -0.4663 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.0758 | 0.6888 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.2700 | 5.8118 | 0.9295 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 1.2677 | 2.7718 | 0.1384 | 2.9525 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 0.4409 | 3.3867 | 0.3007 | 3.3564 | 6.6381 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.6227 | 1.1619 | -0.1051 | 1.0767 | 3.1480 | 1.8150 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.7547 | 1.0730 | 0.0574 | 1.1365 | 3.2019 | 1.8536 | 30.6583 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.0366 | 4.4978 | 0.7708 | 7.7640 | 3.4144 | 3.4496 | 1.0841 | 1.1629 | 0.0000 | 0.0000 |
| 52 | 0.5188 | 2.6480 | 2.7229 | 3.5813 | 1.7944 | 2.0347 | 0.6747 | 0.7306 | 3.6207 | 0.0000 |

T 0.05[9] = 2.262

T 0.01[9] = 3.250

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982
 Station #4

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|--------|
| 1 | 0.0002 | 0.0450 | 0.0190 | 0.0560 | 0.0040 | 0.0340 | 620.0000 | 620.0000 | 4.9500 | 0.4000 |
| 2 | 0.0004 | 0.0250 | 0.0220 | 0.0150 | 0.0310 | 0.0500 | 6300.0000 | 10900.0000 | 46.3000 | 1.8400 |
| 3 | 0.0010 | 0.0050 | 0.0220 | 0.0020 | 0.0420 | 0.0820 | 6900.0000 | 13000.0000 | 4.9200 | 1.0900 |
| 4 | 0.0005 | 0.0220 | 0.0170 | 0.0060 | 0.0190 | 0.0550 | 300.0000 | 1100.0000 | 96.6000 | 2.8100 |
| 5 | 0.0004 | 0.0170 | 0.0170 | 0.0030 | 0.0230 | 0.0600 | 100.0000 | 1900.0000 | 47.8000 | 3.3900 |
| 6 | 0.0010 | 0.0330 | 0.0370 | 0.0160 | 0.0620 | 0.1300 | 1800.0000 | 2300.0000 | 261.0000 | 5.4600 |
| 7 | 0.0005 | 0.0140 | 0.0150 | 0.0060 | 0.0240 | 0.0580 | 700.0000 | 1000.0000 | 120.0000 | 6.0900 |
| 8 | 0.0020 | 0.0200 | 0.0300 | 0.0100 | 0.0300 | 0.1400 | 3400.0000 | 7900.0000 | 165.0000 | 3.9400 |
| 9 | 0.0006 | 0.0270 | 0.0190 | 0.0040 | 0.0350 | 0.1100 | 2700.0000 | 5900.0000 | 86.7000 | 4.1300 |
| 10 | 0.0002 | 0.0080 | 0.0170 | 0.0030 | 0.0040 | 0.0230 | 740.0000 | 580.0000 | 35.3000 | 0.3600 |
| 11 | 0.0003 | 0.0050 | 0.0120 | 0.0020 | 0.0080 | 0.0320 | 220.0000 | 140.0000 | 18.2000 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982
Station #11

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|--------|--------|--------|--------|---------|---------|--------|---------|
| 1 | 1.0000 | 0.3337 | 0.4796 | 0.2727 | 0.4647 | 0.4424 | 0.2207 | 0.2051 | 0.4411 | -0.2112 |
| 2 | 0.3337 | 1.0000 | 0.9248 | 0.7480 | 0.9256 | 0.8858 | 0.2721 | 0.4221 | 0.9488 | 0.4138 |
| 3 | 0.4796 | 0.9248 | 1.0000 | 0.8226 | 0.9525 | 0.9777 | 0.4038 | 0.6083 | 0.9510 | 0.1225 |
| 5 | 0.2727 | 0.7480 | 0.8226 | 1.0000 | 0.7928 | 0.7908 | 0.5138 | 0.4738 | 0.6900 | 0.1571 |
| 6 | 0.4647 | 0.9256 | 0.9525 | 0.7928 | 1.0000 | 0.9575 | 0.5122 | 0.6371 | 0.9207 | 0.1898 |
| 7 | 0.4424 | 0.8858 | 0.9777 | 0.7908 | 0.9575 | 1.0000 | 0.4731 | 0.7313 | 0.9405 | 0.1277 |
| 8 | 0.2207 | 0.2721 | 0.4038 | 0.5138 | 0.5122 | 0.4731 | 1.0000 | 0.7016 | 0.3553 | -0.0920 |
| 9 | 0.2051 | 0.4221 | 0.6083 | 0.4738 | 0.6371 | 0.7313 | 0.7016 | 1.0000 | 0.5679 | -0.0599 |
| 51 | 0.4411 | 0.9488 | 0.9510 | 0.6900 | 0.9207 | 0.9405 | 0.3553 | 0.5679 | 1.0000 | 0.3283 |
| 52 | -0.2112 | 0.4138 | 0.1225 | 0.1571 | 0.1898 | 0.1277 | -0.0920 | -0.0599 | 0.3283 | 1.0000 |

T STATISTIC FOR 9 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|--------|--------|--------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.0726 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 1.6398 | 7.2936 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.8505 | 3.3812 | 4.3398 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 1.5743 | 7.3338 | 9.3864 | 3.9020 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 1.4900 | 5.7254 | 13.9579 | 3.8760 | 9.9621 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.6788 | 0.8484 | 1.3241 | 1.7969 | 1.7892 | 1.6112 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.6287 | 1.3966 | 2.2991 | 1.6141 | 2.4796 | 3.2170 | 2.9534 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.4746 | 9.0110 | 9.2314 | 2.8599 | 7.0778 | 8.3046 | 1.1402 | 2.0698 | 0.0000 | 0.0000 |
| 52 | -0.6483 | 1.3636 | 0.3702 | 0.4771 | 0.5799 | 0.3863 | -0.2772 | -0.1800 | 1.0425 | 0.0000 |

T 0.05[9] = 2.262

T 0.01[9] = 3.250

Appendix J, Table 3
Correlations: Conventional
Water Quality Parameters and
Bacteria, Spring 1983

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 240.0000 | 260.0000 | 0.0060 | 7.9800 | 0.0255 | 0.1230 | 407.0000 | 134.0000 | 3.8200 |
| 2 | 40.0000 | 20.0000 | 0.0060 | 8.1900 | 0.0090 | 0.0270 | 422.0000 | 12.6000 | 2.3500 |
| 3 | 1300.0000 | 780.0000 | 0.0060 | 7.4500 | 0.0330 | 0.3620 | 367.0000 | 161.0000 | 8.2200 |
| 4 | 1900.0000 | 1300.0000 | 0.0080 | 7.4400 | 0.0360 | 0.9300 | 380.0000 | 581.0000 | 14.1000 |
| 5 | 840.0000 | 540.0000 | 0.0080 | 7.6900 | 0.0400 | 0.4500 | 396.0000 | 594.0000 | 14.1700 |
| 6 | 620.0000 | 440.0000 | 0.0060 | 7.8000 | 0.0295 | 0.4250 | 419.0000 | 403.0000 | 8.1200 |
| 7 | 340.0000 | 260.0000 | 0.0040 | 7.8300 | 0.0340 | 0.4520 | 393.0000 | 285.0000 | 4.7500 |
| 8 | 520.0000 | 120.0000 | 0.0060 | 7.9800 | 0.0220 | 0.2500 | 418.0000 | 106.0000 | 4.2400 |
| 9 | 560.0000 | 80.0000 | 0.0040 | 8.1800 | 0.0785 | 0.1680 | 454.0000 | 69.6000 | 3.6200 |
| 10 | 110.0000 | 70.0000 | 0.0040 | 8.2200 | 0.0005 | 0.0610 | 775.0000 | 23.7000 | 1.6200 |
| 11 | 160.0000 | 40.0000 | 0.0060 | 8.2200 | 0.0210 | 0.0500 | 589.0000 | 18.8000 | 2.6500 |
| 12 | 180.0000 | 110.0000 | 0.0040 | 8.1300 | 0.0280 | 0.0660 | 624.0000 | 16.7000 | 2.3000 |
| 13 | 220.0000 | 80.0000 | 0.0060 | 8.2700 | 1.5000 | 1.5200 | 608.0000 | 16.9000 | 5.6300 |
| 14 | 4900.0000 | 1700.0000 | 0.0040 | 7.8600 | 0.0490 | 0.1430 | 0.0819 | 34.9000 | 5.0600 |
| 15 | 8900.0000 | 2600.0000 | 0.0060 | 7.7900 | 0.0460 | 0.2100 | 854.0000 | 70.4000 | 6.4900 |
| 16 | 720.0000 | 620.0000 | 0.0040 | 7.6300 | 0.0275 | 0.2920 | 657.0000 | 53.1000 | 4.3400 |
| 17 | 660.0000 | 440.0000 | 0.0040 | 7.9800 | 0.0245 | 0.1450 | 531.0000 | 55.2000 | 5.1700 |
| 18 | 340.0000 | 400.0000 | 0.0040 | 8.2000 | 0.0280 | 0.2900 | 465.0000 | 146.0000 | 7.2300 |
| 19 | 240.0000 | 160.0000 | 0.0020 | 8.1400 | 0.0275 | 0.2830 | 439.0000 | 96.1000 | 5.5900 |
| 20 | 60.0000 | 80.0000 | 0.0020 | 8.1600 | 0.0230 | 0.2300 | 452.0000 | 87.4000 | 4.7900 |
| 21 | 100.0000 | 150.0000 | 0.0020 | 8.4000 | 0.0240 | 0.1430 | 455.0000 | 69.7000 | 4.6800 |
| 22 | 50.0000 | 70.0000 | 0.0040 | 8.3600 | 0.0190 | 0.0780 | 228.0000 | 29.4000 | 3.9600 |
| 23 | 70.0000 | 20.0000 | 0.0060 | 8.3200 | 0.0170 | 0.0570 | 406.0000 | 34.1000 | 5.5500 |
| 24 | 320.0000 | 40.0000 | 0.0060 | 8.2400 | 0.0160 | 0.1500 | 444.0000 | 37.4000 | 4.2400 |
| 25 | 60.0000 | 60.0000 | 0.0060 | 8.2100 | 0.0100 | 0.0300 | 476.0000 | 6.0100 | 3.0000 |
| 26 | 20.0000 | 80.0000 | 0.0040 | 7.9400 | 0.0100 | 0.0200 | 374.0000 | 8.5900 | 2.2500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #3

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.9527 | 0.1740 | -0.4000 | -0.0496 | 0.0325 | 0.1334 | 0.0547 | 0.2362 |
| 9 | 0.9527 | 1.0000 | 0.2312 | -0.5958 | -0.0915 | 0.1350 | 0.0512 | 0.2553 | 0.4323 |
| 46 | 0.1740 | 0.2312 | 1.0000 | -0.4166 | 0.1365 | 0.3212 | 0.0187 | 0.4938 | 0.5091 |
| 47 | -0.4000 | -0.5958 | -0.4166 | 1.0000 | 0.1687 | -0.2815 | 0.0837 | -0.6347 | -0.6211 |
| 48 | -0.0496 | -0.0915 | 0.1365 | 0.1687 | 1.0000 | 0.8039 | 0.1721 | -0.1137 | 0.0405 |
| 49 | 0.0325 | 0.1350 | 0.3212 | -0.2815 | 0.8039 | 1.0000 | 0.0691 | 0.4245 | 0.5294 |
| 50 | 0.1334 | 0.0512 | 0.0187 | 0.0837 | 0.1721 | 0.0691 | 1.0000 | -0.1896 | -0.1875 |
| 51 | 0.0547 | 0.2553 | 0.4938 | -0.6347 | -0.1137 | 0.4245 | -0.1896 | 1.0000 | 0.8858 |
| 52 | 0.2362 | 0.4323 | 0.5091 | -0.6211 | 0.0405 | 0.5294 | -0.1875 | 0.8858 | 1.0000 |

T STATISTIC FOR 24 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 15.3654 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.8654 | 1.1641 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.1380 | -3.6343 | -2.2449 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.2434 | -0.4499 | 0.6751 | 0.8385 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 0.1595 | 0.6676 | 1.8615 | -1.4373 | 6.6213 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.6595 | 0.2512 | 0.0918 | 0.4116 | 0.8558 | 0.3394 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.2686 | 1.2936 | 2.7818 | -4.0237 | -0.5605 | 2.2971 | -0.9461 | 0.0000 | 0.0000 |
| 52 | 1.1909 | 2.3487 | 2.8980 | -3.8825 | 0.1988 | 3.0573 | -0.9353 | 9.3516 | 0.0000 |

T 0.05[24] = 2.064

T 0.01[24] = 2.797

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #4

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|-----------|----------|---------|
| 1 | 100.0000 | 2700.0000 | 0.0060 | 8.0800 | 0.0580 | 0.1030 | 595.0000 | 19.4000 | 1.5100 |
| 2 | 20.0000 | 20.0000 | 0.0760 | 7.7600 | 0.0140 | 0.0340 | 756.0000 | 11.1000 | 0.3000 |
| 3 | 600.0000 | 860.0000 | 0.0560 | 7.4800 | 0.0390 | 0.6800 | 369.0000 | 193.0000 | 12.5100 |
| 4 | 1000.0000 | 200.0000 | 0.0080 | 7.5300 | 0.0520 | 1.4100 | 373.0000 | 758.0000 | 9.5700 |
| 5 | 320.0000 | 660.0000 | 0.0060 | 7.6200 | 0.0380 | 0.3350 | 443.0000 | 257.0000 | 5.1500 |
| 6 | 160.0000 | 140.0000 | 0.0060 | 8.0200 | 0.0255 | 0.1100 | 552.0000 | 65.8000 | 2.2100 |
| 7 | 240.0000 | 40.0000 | 0.0060 | 8.2000 | 0.0150 | 0.0680 | 592.0000 | 30.6000 | 1.6700 |
| 8 | 40.0000 | 100.0000 | 0.0040 | 7.9800 | 0.0180 | 0.0650 | 777.0000 | 11.1000 | 1.1900 |
| 9 | 660.0000 | 460.0000 | 0.0060 | 7.8700 | 0.0120 | 0.0300 | 1026.0000 | 6.7100 | 0.8700 |
| 10 | 130.0000 | 2500.0000 | 0.1660 | 7.6700 | 0.0400 | 0.1220 | 2336.0000 | 17.3000 | 1.2000 |
| 11 | 30.0000 | 70.0000 | 0.0700 | 8.3200 | 0.0110 | 0.0180 | 1259.0000 | 6.5200 | 0.9900 |
| 12 | 80.0000 | 1230.0000 | 0.0400 | 7.6700 | 0.0060 | 0.0100 | 0.0000 | 5.9500 | 0.9000 |
| 13 | 160.0000 | 720.0000 | 0.1080 | 8.0600 | 0.0055 | 0.0290 | 1406.0000 | 3.7000 | 1.1100 |
| 14 | 140.0000 | 660.0000 | 0.3400 | 7.4300 | 0.0360 | 0.2750 | 1067.0000 | 92.8000 | 3.2800 |
| 15 | 880.0000 | 1180.0000 | 0.7300 | 7.4500 | 0.0270 | 0.2450 | 1694.0000 | 120.0000 | 3.6800 |
| 16 | 120.0000 | 660.0000 | 0.4400 | 7.2100 | 0.0100 | 0.2300 | 1023.0000 | 78.6000 | 3.1400 |
| 17 | 620.0000 | 760.0000 | 0.0040 | 7.2800 | 0.0250 | 0.1900 | 836.0000 | 90.1000 | 4.2800 |
| 18 | 120.0000 | 900.0000 | 0.0040 | 7.6400 | 0.0305 | 0.2700 | 508.0000 | 145.0000 | 2.2900 |
| 19 | 140.0000 | 540.0000 | 0.0040 | 7.9400 | 0.0210 | 0.2400 | 556.0000 | 52.4000 | 1.7500 |
| 20 | 40.0000 | 80.0000 | 0.0040 | 8.0400 | 0.0160 | 0.1450 | 614.0000 | 31.3000 | 1.1800 |
| 21 | 290.0000 | 710.0000 | 0.0040 | 8.4400 | 0.0155 | 0.0760 | 654.0000 | 21.8000 | 1.0100 |
| 22 | 10.0000 | 180.0000 | 0.0620 | 8.0100 | 0.0045 | 0.0170 | 762.0000 | 7.0200 | 0.9100 |
| 23 | 110.0000 | 160.0000 | 0.0460 | 7.9600 | 0.0080 | 0.0220 | 742.0000 | 6.8900 | 0.6400 |
| 24 | 80.0000 | 1500.0000 | 0.0780 | 7.8700 | 0.0035 | 0.0240 | 912.0000 | 4.6300 | 0.4700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #4

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | -0.0089 | 0.2474 | -0.4294 | 0.4138 | 0.6746 | 0.0232 | 0.6688 | 0.6711 |
| 9 | -0.0089 | 1.0000 | 0.1949 | -0.1829 | 0.4509 | -0.0760 | 0.3419 | -0.1257 | -0.0245 |
| 46 | 0.2474 | 0.1949 | 1.0000 | -0.4879 | 0.0043 | 0.0104 | 0.5505 | -0.0202 | 0.0675 |
| 47 | -0.4294 | -0.1829 | -0.4879 | 1.0000 | -0.3163 | -0.4402 | -0.0755 | -0.4001 | -0.5302 |
| 48 | 0.4138 | 0.4509 | 0.0043 | -0.3163 | 1.0000 | 0.6240 | -0.0252 | 0.5833 | 0.5832 |
| 49 | 0.6746 | -0.0760 | 0.0104 | -0.4402 | 0.6240 | 1.0000 | -0.2466 | 0.9633 | 0.8449 |
| 50 | 0.0232 | 0.3419 | 0.5505 | -0.0755 | -0.0252 | -0.2466 | 1.0000 | -0.2638 | -0.2534 |
| 51 | 0.6688 | -0.1257 | -0.0202 | -0.4001 | 0.5833 | 0.9633 | -0.2638 | 1.0000 | 0.7439 |
| 52 | 0.6711 | -0.0245 | 0.0675 | -0.5302 | 0.5832 | 0.8449 | -0.2534 | 0.7439 | 1.0000 |

T STATISTIC FOR 22 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.0415 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.1976 | 0.8925 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.2300 | -0.8724 | -2.6214 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 2.1323 | 2.3492 | 0.0201 | -1.5639 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 4.2864 | -0.3576 | 0.0489 | -2.2993 | 3.7453 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.1090 | 1.7064 | 3.0929 | -0.3550 | -0.1181 | -1.1935 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.3200 | -0.5944 | -0.0949 | -2.0478 | 3.3682 | 16.9377 | -1.2828 | 0.0000 | 0.0000 |
| 52 | 4.2457 | -0.1152 | 0.3174 | -2.9331 | 3.3674 | 7.4077 | -1.2287 | 5.2211 | 0.0000 |

T 0.05[22] = 2.074

T 0.01[22] = 2.819

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Spring 1983
Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|--------------|------------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 560.0000 | 540.0000 | 0.0060 | 7.9400 | 0.0270 | 0.0480 | 696.0000 | 14.7000 | 0.7800 |
| 2 | 80.0000 | 40.0000 | 0.0100 | 7.8100 | 0.0240 | 0.0580 | 996.0000 | 6.5600 | 0.2700 |
| 3 | 1200.0000 | 1900.0000 | 0.0080 | 7.6700 | 0.0430 | 0.3500 | 452.0000 | 151.0000 | 3.8200 |
| 4 | 11900.0000 | 4100.0000 | 0.0060 | 7.5000 | 0.0340 | 0.9500 | 292.0000 | 337.0000 | 9.6500 |
| 5 | 1440.0000 | 1530.0000 | 0.0060 | 7.6100 | 0.0380 | 0.3500 | 484.0000 | 229.0000 | 3.5500 |
| 6 | 1020.0000 | 280.0000 | 0.0060 | 8.0100 | 0.0290 | 0.1200 | 672.0000 | 76.3000 | 1.5500 |
| 7 | 1260.0000 | 220.0000 | 0.0080 | 8.1900 | 0.0320 | 0.1070 | 710.0000 | 36.6000 | 1.0500 |
| 8 | 1660.0000 | 220.0000 | 0.0080 | 8.0000 | 0.0220 | 0.0910 | 1254.0000 | 16.2000 | 0.7300 |
| 9 | 2300.0000 | 180.0000 | 0.0100 | 7.7400 | 0.0520 | 0.1000 | 1617.0000 | 14.7000 | 0.5700 |
| 10 | 1530.0000 | 220.0000 | 0.0060 | 7.8600 | 0.0350 | 0.1250 | 2658.0000 | 33.2000 | 0.8400 |
| 11 | 240.0000 | 80.0000 | 0.0140 | 7.1200 | 0.0250 | 0.0850 | 1448.0000 | 20.9000 | 0.5200 |
| 12 | 960.0000 | 100.0000 | 0.0080 | 7.9400 | 0.0460 | 0.1200 | 1456.0000 | 12.8000 | 0.5100 |
| 13 | 2100.0000 | 780.0000 | 0.0060 | 8.1300 | 0.0375 | 0.1030 | 1465.0000 | 8.7200 | 0.3600 |
| 14 | 820.0000 | 330.0000 | 0.0060 | 7.9200 | 0.0160 | 0.0410 | 1367.0000 | 5.3900 | 0.4100 |
| 15 | 1569000.0000 | 12100.0000 | 0.0100 | 7.4800 | 0.2050 | 2.7200 | 1493.0000 | 68.4000 | 1.7500 |
| 16 | 4600.0000 | 2900.0000 | 0.0080 | 7.6900 | 0.0280 | 0.2800 | 1185.0000 | 142.0000 | 3.0000 |
| 17 | 3700.0000 | 1100.0000 | 0.0060 | 7.5500 | 0.0270 | 0.2270 | 1003.0000 | 71.6000 | 2.2200 |
| 18 | 520.0000 | 270.0000 | 0.0060 | 7.5300 | 0.0180 | 0.1700 | 942.0000 | 31.7000 | 1.1900 |
| 19 | 2600.0000 | 600.0000 | 0.0060 | 7.3800 | 0.0290 | 0.4230 | 722.0000 | 74.4000 | 2.4600 |
| 20 | 2500.0000 | 1800.0000 | 0.0040 | 7.4900 | 0.0290 | 0.3180 | 735.0000 | 68.4000 | 2.4400 |
| 21 | 300.0000 | 240.0000 | 0.0060 | 8.0000 | 0.0280 | 0.0830 | 930.0000 | 9.7000 | 0.6300 |
| 22 | 620.0000 | 166.0000 | 0.0100 | 7.7500 | 0.0350 | 0.0500 | 960.0000 | 6.3500 | 0.6000 |
| 23 | 600.0000 | 50.0000 | 0.0060 | 8.0200 | 0.0160 | 0.1050 | 526.0000 | 10.5000 | 0.7300 |
| 24 | 391.0000 | 1300.0000 | 0.0060 | 7.6100 | 0.0380 | 0.0770 | 1268.0000 | 3.9400 | 0.5200 |
| 25 | 300.0000 | 140.0000 | 0.0080 | 7.5900 | 0.0200 | 0.0420 | 1019.0000 | 4.8400 | 0.3500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #5

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.9609 | 0.2137 | -0.2543 | 0.9640 | 0.9724 | 0.1470 | 0.1565 | 0.1623 |
| 9 | 0.9609 | 1.0000 | 0.1212 | -0.3235 | 0.9059 | 0.9761 | 0.0168 | 0.3724 | 0.3705 |
| 46 | 0.2137 | 0.1212 | 1.0000 | -0.2957 | 0.2813 | 0.1444 | 0.2616 | -0.2028 | -0.2382 |
| 47 | -0.2543 | -0.3235 | -0.2957 | 1.0000 | -0.1931 | -0.3404 | 0.0550 | -0.3292 | -0.3466 |
| 48 | 0.9640 | 0.9059 | 0.2813 | -0.1931 | 1.0000 | 0.9214 | 0.2208 | 0.0790 | 0.0548 |
| 49 | 0.9724 | 0.9761 | 0.1444 | -0.3404 | 0.9214 | 1.0000 | 0.0119 | 0.3498 | 0.3600 |
| 50 | 0.1470 | 0.0168 | 0.2616 | 0.0550 | 0.2208 | 0.0119 | 1.0000 | -0.4716 | -0.4884 |
| 51 | 0.1565 | 0.3724 | -0.2028 | -0.3292 | 0.0790 | 0.3498 | -0.4716 | 1.0000 | 0.9556 |
| 52 | 0.1623 | 0.3705 | -0.2382 | -0.3466 | 0.0548 | 0.3600 | -0.4884 | 0.9556 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 16.6331 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.0491 | 0.5358 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.2612 | -1.6395 | -1.4844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 17.3795 | 10.2570 | 1.4058 | -0.9439 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 19.9798 | 21.5272 | 0.6996 | -1.7360 | 11.3683 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.7127 | 0.0306 | 1.3000 | 0.2643 | 1.0859 | 0.0572 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.7599 | 1.9246 | -0.9932 | -1.6722 | 0.3802 | 1.7904 | -2.5652 | 0.0000 | 0.0000 |
| 52 | 0.7890 | 1.9129 | -1.1765 | -1.7723 | 0.2631 | 1.8506 | -2.6840 | 15.5518 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #6

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 240.0000 | 340.0000 | 0.0060 | 7.9400 | 0.0280 | 0.1810 | 377.0000 | 160.0000 | 20.7600 |
| 2 | 20.0000 | 20.0000 | 0.0020 | 8.3900 | 0.0100 | 0.0380 | 389.0000 | 17.8000 | 5.0900 |
| 3 | 460.0000 | 780.0000 | 0.0040 | 7.5500 | 0.0270 | 0.2320 | 376.0000 | 140.0000 | 20.5700 |
| 4 | 1060.0000 | 820.0000 | 0.0060 | 7.5100 | 0.0260 | 0.5600 | 397.0000 | 765.0000 | 44.0200 |
| 5 | 480.0000 | 780.0000 | 0.0080 | 7.7600 | 0.0390 | 0.5800 | 407.0000 | 610.0000 | 64.3600 |
| 6 | 300.0000 | 1160.0000 | 0.0080 | 7.8200 | 0.0355 | 0.4450 | 402.0000 | 402.0000 | 32.7700 |
| 7 | 340.0000 | 300.0000 | 0.0040 | 7.9900 | 0.0340 | 0.3900 | 381.0000 | 322.0000 | 25.5600 |
| 8 | 300.0000 | 240.0000 | 0.0080 | 7.9900 | 0.0290 | 0.1950 | 409.0000 | 120.0000 | 15.2100 |
| 9 | 340.0000 | 80.0000 | 0.0040 | 8.0700 | 0.0330 | 0.1380 | 434.0000 | 76.4000 | 12.0400 |
| 10 | 20.0000 | 20.0000 | 0.0040 | 8.3600 | 0.0180 | 0.0640 | 647.0000 | 23.2000 | 7.2600 |
| 11 | 70.0000 | 20.0000 | 0.0040 | 8.2500 | 0.0905 | 0.1350 | 514.0000 | 20.6000 | 5.4500 |
| 12 | 110.0000 | 530.0000 | 0.0120 | 8.1200 | 0.0170 | 0.0790 | 543.0000 | 22.0000 | 5.7100 |
| 13 | 80.0000 | 60.0000 | 0.0040 | 8.1800 | 0.7400 | 0.7400 | 520.0000 | 21.2000 | 5.9000 |
| 14 | 1760.0000 | 780.0000 | 0.0060 | 7.8300 | 0.0285 | 0.1730 | 631.0000 | 45.5000 | 8.0200 |
| 15 | 1120.0000 | 340.0000 | 0.0060 | 7.9500 | 0.0230 | 0.1020 | 643.0000 | 53.0000 | 10.5800 |
| 16 | 540.0000 | 260.0000 | 0.0040 | 8.0000 | 0.0555 | 0.1080 | 554.0000 | 43.4000 | 8.7400 |
| 17 | 200.0000 | 320.0000 | 0.0040 | 7.8900 | 0.0310 | 0.1700 | 477.0000 | 79.6000 | 12.8100 |
| 18 | 220.0000 | 540.0000 | 0.0020 | 8.1100 | 0.0270 | 0.2300 | 426.0000 | 108.0000 | 16.4800 |
| 19 | 80.0000 | 360.0000 | 0.0040 | 8.1100 | 0.0270 | 0.2530 | 441.0000 | 92.8000 | 15.6300 |
| 20 | 30.0000 | 80.0000 | 0.0040 | 7.9400 | 0.0200 | 0.1260 | 400.0000 | 36.2000 | 11.3000 |
| 21 | 20.0000 | 20.0000 | 0.0040 | 8.2100 | 0.0200 | 0.0630 | 385.0000 | 30.7000 | 12.2700 |
| 22 | 50.0000 | 20.0000 | 0.0060 | 8.2000 | 0.0180 | 0.0810 | 404.0000 | 48.4000 | 11.6700 |
| 23 | 110.0000 | 30.0000 | 0.0080 | 8.4000 | 0.0100 | 0.0350 | 433.0000 | 7.8700 | 5.9000 |
| 24 | 60.0000 | 180.0000 | 0.0040 | 8.0200 | 0.0110 | 0.0280 | 349.0000 | 10.4000 | 4.0000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #6

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.5656 | 0.1855 | -0.5989 | -0.1185 | 0.2256 | 0.4062 | 0.3758 | 0.3121 |
| 9 | 0.5656 | 1.0000 | 0.3810 | -0.7751 | -0.1724 | 0.4830 | -0.0522 | 0.6622 | 0.6472 |
| 46 | 0.1855 | 0.3810 | 1.0000 | -0.1663 | -0.1290 | 0.0884 | 0.1170 | 0.2495 | 0.2566 |
| 47 | -0.5989 | -0.7751 | -0.1663 | 1.0000 | 0.1302 | -0.4702 | 0.1909 | -0.6684 | -0.6395 |
| 48 | -0.1185 | -0.1724 | -0.1290 | 0.1302 | 1.0000 | 0.6027 | 0.1725 | -0.1103 | -0.1368 |
| 49 | 0.2256 | 0.4830 | 0.0884 | -0.4702 | 0.6027 | 1.0000 | -0.1349 | 0.6903 | 0.6594 |
| 50 | 0.4062 | -0.0522 | 0.1170 | 0.1909 | 0.1725 | -0.1349 | 1.0000 | -0.3269 | -0.3549 |
| 51 | 0.3758 | 0.6622 | 0.2495 | -0.6684 | -0.1103 | 0.6903 | -0.3269 | 1.0000 | 0.9321 |
| 52 | 0.3121 | 0.6472 | 0.2566 | -0.6395 | -0.1368 | 0.6594 | -0.3549 | 0.9321 | 1.0000 |

T STATISTIC FOR 22 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 3.2173 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.8853 | 1.9331 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -3.5078 | -5.7544 | -0.7911 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.5599 | -0.8211 | -0.6103 | 0.6160 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 1.0861 | 2.5874 | 0.4164 | -2.4969 | 3.5429 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 2.0852 | -0.2450 | 0.5525 | 0.9124 | 0.8213 | -0.6384 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.9022 | 4.1447 | 1.2036 | -4.2149 | -0.5203 | 4.4756 | -1.6222 | 0.0000 | 0.0000 |
| 52 | 1.5410 | 3.9818 | 1.2454 | -3.9018 | -0.6477 | 4.1135 | -1.7807 | 12.0747 | 0.0000 |

T 0.05[22] = 2.074

T 0.01[22] = 2.819

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station 47

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 2 | 7 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 100.0000 | 320.0000 | 0.0040 | 7.9100 | 0.0240 | 0.2020 | 374.0000 | 149.0000 | 19.7700 |
| 2 | 20.0000 | 20.0000 | 0.0620 | 8.4300 | 0.0100 | 0.0370 | 392.0000 | 19.9000 | 7.6700 |
| 3 | 560.0000 | 640.0000 | 0.0060 | 7.5500 | 0.0290 | 0.3530 | 369.0000 | 119.0000 | 20.1600 |
| 4 | 440.0000 | 720.0000 | 0.0080 | 7.5500 | 0.0390 | 0.6750 | 399.0000 | 751.0000 | 46.9200 |
| 5 | 600.0000 | 1520.0000 | 0.0080 | 7.6800 | 0.0440 | 0.6900 | 397.0000 | 597.0000 | 72.7000 |
| 6 | 600.0000 | 2100.0000 | 0.0080 | 7.7800 | 0.0305 | 0.5700 | 385.0000 | 423.0000 | 41.4800 |
| 7 | 240.0000 | 220.0000 | 0.0040 | 7.8000 | 0.0320 | 0.4250 | 370.0000 | 354.0000 | 28.6600 |
| 8 | 280.0000 | 220.0000 | 0.0040 | 8.1900 | 0.0260 | 0.2300 | 366.0000 | 132.0000 | 17.1100 |
| 9 | 140.0000 | 40.0000 | 0.0040 | 8.0500 | 0.0330 | 0.1640 | 373.0000 | 81.2000 | 13.9300 |
| 10 | 10.0000 | 50.0000 | 0.0060 | 8.1000 | 0.0180 | 0.0730 | 482.0000 | 26.8000 | 9.9400 |
| 11 | 10.0000 | 10.0000 | 0.0040 | 8.2900 | 0.0520 | 0.0870 | 485.0000 | 23.9000 | 8.0200 |
| 12 | 20.0000 | 110.0000 | 0.0060 | 8.2000 | 0.0135 | 0.0780 | 486.0000 | 21.7000 | 7.6700 |
| 13 | 20.0000 | 140.0000 | 0.0040 | 8.1600 | 0.0195 | 0.1100 | 537.0000 | 35.5000 | 11.0200 |
| 14 | 500.0000 | 240.0000 | 0.0040 | 8.1300 | 0.0245 | 0.1750 | 632.0000 | 52.3000 | 11.6500 |
| 15 | 420.0000 | 320.0000 | 0.0020 | 7.9800 | 0.0640 | 0.2270 | 533.0000 | 43.6000 | 11.9600 |
| 16 | 140.0000 | 180.0000 | 0.0040 | 7.8800 | 0.0815 | 0.2280 | 462.0000 | 87.4000 | 14.6100 |
| 17 | 280.0000 | 300.0000 | 0.0040 | 8.3800 | 0.0270 | 0.2930 | 414.0000 | 89.2000 | 25.1100 |
| 18 | 160.0000 | 60.0000 | 0.0020 | 8.2100 | 0.0250 | 0.1800 | 622.0000 | 119.0000 | 21.7600 |
| 19 | 220.0000 | 1560.0000 | 0.0100 | 8.1600 | 0.0265 | 0.1600 | 29.0000 | 62.9000 | 19.3800 |
| 20 | 60.0000 | 740.0000 | 0.0080 | 8.2200 | 0.0295 | 0.1500 | 425.0000 | 96.5000 | 17.8500 |
| 21 | 70.0000 | 90.0000 | 0.0020 | 8.0300 | 0.0105 | 0.1040 | 385.0000 | 29.7000 | 12.9300 |
| 22 | 40.0000 | 20.0000 | 0.0060 | 8.1600 | 0.0180 | 0.0650 | 372.0000 | 33.2000 | 13.5900 |
| 23 | 30.0000 | 10.0000 | 0.0080 | 8.0700 | 0.0155 | 0.0370 | 400.0000 | 51.9000 | 13.9300 |
| 24 | 130.0000 | 50.0000 | 0.0040 | 8.3200 | 0.0070 | 0.0300 | 438.0000 | 10.4000 | 8.5700 |
| 25 | 60.0000 | 50.0000 | 0.0060 | 8.1800 | 0.0075 | 0.0260 | 347.0000 | 6.0200 | 6.7400 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6671 | -0.1599 | -0.6531 | 0.3411 | 0.7692 | 0.0014 | 0.6337 | 0.6853 |
| 9 | 0.6671 | 1.0000 | -0.0171 | -0.4724 | 0.1961 | 0.6329 | -0.4461 | 0.5904 | 0.7063 |
| 46 | -0.1599 | -0.0171 | 1.0000 | 0.2739 | -0.2358 | -0.1185 | -0.1571 | -0.0527 | -0.0835 |
| 47 | -0.6531 | -0.4724 | 0.2739 | 1.0000 | -0.3995 | -0.7771 | 0.1200 | -0.7279 | -0.6480 |
| 48 | 0.3411 | 0.1961 | -0.2358 | -0.3995 | 1.0000 | 0.3956 | 0.1407 | 0.2766 | 0.2739 |
| 49 | 0.7692 | 0.6329 | -0.1185 | -0.7771 | 0.3956 | 1.0000 | -0.0926 | 0.9620 | 0.8942 |
| 50 | 0.0014 | -0.4461 | -0.1571 | 0.1200 | 0.1407 | -0.0926 | 1.0000 | -0.1143 | -0.1581 |
| 51 | 0.6337 | 0.5904 | -0.0527 | -0.7279 | 0.2766 | 0.9620 | -0.1143 | 1.0000 | 0.9092 |
| 52 | 0.6853 | 0.7063 | -0.0835 | -0.6480 | 0.2739 | 0.8942 | -0.1581 | 0.9092 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|--------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 4.2949 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.7768 | -0.0818 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -4.1365 | -2.5703 | 1.3659 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.7401 | 0.9589 | -1.1635 | -2.0898 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 5.7723 | 3.9205 | -0.5722 | -5.9220 | 2.0655 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.0068 | -2.3903 | -0.7628 | 0.5797 | 0.6817 | -0.4461 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 3.9269 | 3.5083 | -0.2530 | -5.0912 | 1.3806 | 16.8866 | -0.5516 | 0.0000 | 0.0000 |
| 52 | 4.5126 | 4.7843 | -0.4018 | -4.0799 | 1.3660 | 9.5791 | -0.7677 | 10.4732 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #6

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.5391 | 0.0263 | -0.4715 | 0.3993 | 0.4160 | 0.0370 | 0.4773 | 0.6039 |
| 9 | 0.5391 | 1.0000 | 0.1902 | -0.2732 | 0.4750 | 0.4099 | -0.1937 | 0.2697 | 0.5309 |
| 46 | 0.0263 | 0.1902 | 1.0000 | 0.1324 | -0.0386 | 0.0745 | 0.3075 | 0.1539 | 0.1126 |
| 47 | -0.4715 | -0.2732 | 0.1324 | 1.0000 | -0.6424 | -0.6368 | 0.2507 | -0.4771 | -0.5071 |
| 48 | 0.3993 | 0.4750 | -0.0386 | -0.6424 | 1.0000 | 0.8675 | -0.5032 | 0.4916 | 0.6710 |
| 49 | 0.4160 | 0.4099 | 0.0745 | -0.6368 | 0.8675 | 1.0000 | -0.4070 | 0.7597 | 0.7864 |
| 50 | 0.0370 | -0.1937 | 0.3075 | 0.2507 | -0.5032 | -0.4070 | 1.0000 | -0.2453 | -0.3372 |
| 51 | 0.4773 | 0.2697 | 0.1539 | -0.4771 | 0.4916 | 0.7597 | -0.2453 | 1.0000 | 0.8933 |
| 52 | 0.6039 | 0.5309 | 0.1126 | -0.5071 | 0.6710 | 0.7864 | -0.3372 | 0.8933 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.7901 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.1148 | 0.8443 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.3306 | -1.2377 | 0.5824 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.8986 | 2.3530 | -0.1682 | -3.6539 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 1.9939 | 1.9590 | 0.3257 | -3.6005 | 7.6026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.1613 | -0.8607 | 1.4089 | 1.1287 | -2.5385 | -1.9424 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 2.3675 | 1.2210 | 0.6789 | -2.3663 | 2.4606 | 5.0931 | -1.1029 | 0.0000 | 0.0000 |
| 52 | 3.3024 | 2.7306 | 0.4938 | -2.5647 | 3.9446 | 5.5484 | -1.5613 | 8.6647 | 0.0000 |

T 0.05[19] = 2.073 T 0.01[19] = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 0 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 160.0000 | 220.0000 | 0.0040 | 7.7400 | 0.0270 | 0.1390 | 381.0000 | 77.1000 | 7.7000 |
| 2 | 20.0000 | 20.0000 | 0.0040 | 8.2700 | 0.0120 | 0.0410 | 426.0000 | 13.3000 | 1.9400 |
| 3 | 460.0000 | 540.0000 | 0.0080 | 7.5400 | 0.0360 | 0.2830 | 390.0000 | 235.0000 | 5.8000 |
| 4 | 320.0000 | 500.0000 | 0.0080 | 7.7700 | 0.0310 | 0.4200 | 404.0000 | 677.0000 | 15.2400 |
| 5 | 800.0000 | 1840.0000 | 0.0100 | 7.6800 | 0.0450 | 0.4200 | 388.0000 | 765.0000 | 30.0000 |
| 6 | 820.0000 | 8400.0000 | 0.0100 | 7.7700 | 0.0495 | 0.3400 | 378.0000 | 216.0000 | 17.1900 |
| 7 | 520.0000 | 500.0000 | 0.0060 | 7.8100 | 0.0505 | 0.3200 | 357.0000 | 145.0000 | 10.4900 |
| 8 | 340.0000 | 320.0000 | 0.0080 | 7.7700 | 0.0450 | 0.2220 | 383.0000 | 88.2000 | 5.1700 |
| 9 | 100.0000 | 160.0000 | 0.0060 | 8.0800 | 0.0410 | 0.3370 | 386.0000 | 65.7000 | 5.3800 |
| 10 | 10.0000 | 10.0000 | 0.0040 | 8.1000 | 0.0250 | 0.1100 | 492.0000 | 31.3000 | 2.1100 |
| 11 | 20.0000 | 20.0000 | 0.0150 | 8.1800 | 0.0140 | 0.0850 | 547.0000 | 17.8000 | 0.9600 |
| 12 | 250.0000 | 20.0000 | 0.0120 | 8.0500 | 0.0140 | 0.0610 | 553.0000 | 20.4000 | 1.0400 |
| 13 | 420.0000 | 220.0000 | 0.0100 | 7.8500 | 0.0120 | 0.0870 | 838.0000 | 40.4000 | 1.6800 |
| 14 | 800.0000 | 360.0000 | 0.0040 | 8.1000 | 0.0130 | 0.0660 | 568.0000 | 32.8000 | 1.6400 |
| 15 | 580.0000 | 220.0000 | 0.0060 | 7.8900 | 0.0110 | 0.0530 | 390.0000 | 24.1000 | 1.5200 |
| 16 | 200.0000 | 340.0000 | 0.0060 | 7.6200 | 0.0380 | 0.3150 | 448.0000 | 61.3000 | 2.9100 |
| 17 | 60.0000 | 260.0000 | 0.0040 | 7.7300 | 0.0200 | 0.1340 | 362.0000 | 18.3000 | 2.7000 |
| 18 | 20.0000 | 100.0000 | 0.0080 | 8.0700 | 0.0240 | 0.0870 | 376.0000 | 41.9000 | 2.1000 |
| 19 | 20.0000 | 920.0000 | 0.0100 | 7.9600 | 0.0250 | 0.1640 | 402.0000 | 56.3000 | 1.7000 |
| 20 | 40.0000 | 50.0000 | 0.0120 | 8.3700 | 0.0070 | 0.0910 | 475.0000 | 11.3000 | 0.7700 |
| 21 | 60.0000 | 40.0000 | 0.0040 | 8.1300 | 0.0090 | 0.0240 | 435.0000 | 4.7000 | 0.4400 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1963

Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 200.0000 | 300.0000 | 0.0040 | 7.9700 | 0.0250 | 0.1550 | 360.0000 | 201.0000 | 7.9500 |
| 2 | 20.0000 | 20.0000 | 0.0020 | 8.3200 | 0.0130 | 0.0320 | 368.0000 | 16.8000 | 1.8500 |
| 3 | 1100.0000 | 340.0000 | 0.0040 | 8.1000 | 0.0280 | 0.7150 | 387.0000 | 118.0000 | 6.9600 |
| 4 | 760.0000 | 1290.0000 | 0.0060 | 7.7000 | 0.0310 | 0.7600 | 390.0000 | 832.0000 | 16.0400 |
| 5 | 400.0000 | 900.0000 | 0.0100 | 7.8900 | 0.0390 | 0.6500 | 384.0000 | 618.0000 | 7.9700 |
| 6 | 340.0000 | 940.0000 | 0.0080 | 7.9600 | 0.0210 | 0.4650 | 415.0000 | 315.0000 | 17.0400 |
| 7 | 300.0000 | 160.0000 | 0.0060 | 7.9900 | 0.0250 | 0.5150 | 378.0000 | 359.0000 | 13.6800 |
| 8 | 220.0000 | 60.0000 | 0.0040 | 8.2000 | 0.0200 | 0.3200 | 354.0000 | 158.0000 | 7.3100 |
| 9 | 300.0000 | 40.0000 | 0.0020 | 8.2600 | 0.0310 | 0.2400 | 339.0000 | 91.5000 | 4.3600 |
| 10 | 20.0000 | 30.0000 | 0.0040 | 8.2600 | 0.1920 | 0.2650 | 454.0000 | 28.6000 | 3.2200 |
| 11 | 60.0000 | 10.0000 | 0.0060 | 8.2300 | 0.0245 | 0.0840 | 420.0000 | 34.9000 | 3.6400 |
| 12 | 140.0000 | 70.0000 | 0.0040 | 8.1500 | 0.0110 | 0.0680 | 444.0000 | 45.0000 | 3.4200 |
| 13 | 80.0000 | 240.0000 | 0.0060 | 7.8200 | 0.0480 | 0.2120 | 500.0000 | 77.0000 | 5.4100 |
| 14 | 400.0000 | 220.0000 | 0.0040 | 8.1600 | 0.0510 | 0.1750 | 431.0000 | 45.6000 | 4.8200 |
| 15 | 300.0000 | 260.0000 | 0.0040 | 8.2500 | 0.0235 | 0.1150 | 429.0000 | 43.8000 | 4.5400 |
| 16 | 280.0000 | 1020.0000 | 0.0040 | 8.2200 | 0.0950 | 0.4500 | 424.0000 | 313.0000 | 11.6300 |
| 17 | 20.0000 | 10.9000 | 0.0040 | 8.1800 | 0.0100 | 0.1250 | 379.0000 | 37.7000 | 6.1000 |
| 18 | 30.0000 | 30.0000 | 0.0040 | 8.2100 | 0.0300 | 0.0570 | 368.0000 | 39.9000 | 7.1500 |
| 19 | 70.0000 | 30.0000 | 0.0040 | 8.1700 | 0.0125 | 0.1110 | 374.0000 | 54.4000 | 7.1000 |
| 20 | 100.0000 | 10.0000 | 0.0040 | 8.3100 | 0.0070 | 0.0310 | 394.0000 | 8.9800 | 4.1500 |
| 21 | 40.0000 | 20.0000 | 0.0060 | 8.1500 | 0.0140 | 0.0310 | 324.0000 | 6.0600 | 2.7200 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station 49

CORRELATION MATRIX: VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.5497 | 0.1679 | -0.4322 | -0.0636 | 0.8110 | -0.0618 | 0.5323 | 0.4519 |
| 9 | 0.5497 | 1.0000 | 0.5351 | -0.6390 | 0.1287 | 0.7566 | 0.1229 | 0.8565 | 0.7660 |
| 46 | 0.1679 | 0.5351 | 1.0000 | -0.6643 | -0.0384 | 0.4822 | 0.1461 | 0.5933 | 0.4748 |
| 47 | -0.4322 | -0.6390 | -0.6643 | 1.0000 | 0.0888 | -0.6343 | -0.1441 | -0.7598 | -0.6428 |
| 48 | -0.0636 | 0.1287 | -0.0384 | 0.0888 | 1.0000 | 0.1748 | 0.4510 | 0.0159 | -0.0468 |
| 49 | 0.8110 | 0.7566 | 0.4822 | -0.6343 | 0.1748 | 1.0000 | -0.0051 | 0.8200 | 0.7121 |
| 50 | -0.0618 | 0.1229 | 0.1461 | -0.1441 | 0.4510 | -0.0051 | 1.0000 | -0.1050 | -0.0504 |
| 51 | 0.5323 | 0.8565 | 0.5933 | -0.7598 | 0.0159 | 0.8200 | -0.1050 | 1.0000 | 0.7694 |
| 52 | 0.4519 | 0.7660 | 0.4748 | -0.6428 | -0.0468 | 0.7121 | -0.0504 | 0.7694 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.8681 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.7423 | 2.7610 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.0892 | -3.6206 | -3.8744 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.2779 | 0.5656 | -0.1677 | 0.3888 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 6.0423 | 5.0430 | 2.3994 | -3.5763 | 0.7740 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.2698 | 0.5397 | 0.6439 | -0.6349 | 2.2028 | -0.0223 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 2.7407 | 7.2322 | 3.2126 | -5.0937 | 0.0692 | 6.2453 | -0.4603 | 0.0000 | 0.0000 |
| 52 | 2.2083 | 5.1935 | 2.3516 | -3.6578 | -0.2043 | 4.4216 | -0.2200 | 5.2499 | 0.0000 |

T 0.050193 = 2.093

T 0.010193 = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 2 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|----------|-----------|--------|--------|--------|----------|----------|-----------|---------|
| 1 | 320.0000 | 500.0000 | 0.0040 | 8.0200 | 0.0205 | 0.2120 | 363.0000 | 150.0000 | 8.9500 |
| 2 | 20.0000 | 20.0000 | 0.0060 | 8.3800 | 0.0100 | 0.0520 | 341.0000 | 25.7000 | 3.2700 |
| 3 | 440.0000 | 100.0000 | 0.0080 | 8.0400 | 0.0250 | 0.2720 | 374.0000 | 83.5000 | 5.4100 |
| 4 | 800.0000 | 900.0000 | 0.0060 | 7.7200 | 0.0370 | 1.0700 | 392.0000 | 1114.0000 | 14.6400 |
| 5 | 540.0000 | 1260.0000 | 0.0100 | 7.8600 | 0.0360 | 0.6800 | 321.0000 | 642.0000 | 17.1200 |
| 6 | 320.0000 | 1140.0000 | 0.0040 | 7.9100 | 0.0265 | 0.9400 | 396.0000 | 618.0000 | 15.1900 |
| 7 | 420.0000 | 180.0000 | 0.0060 | 7.9100 | 0.0240 | 0.6100 | 0.0000 | 375.0000 | 12.6100 |
| 8 | 140.0000 | 40.0000 | 0.0040 | 8.1100 | 0.0190 | 0.1650 | 357.0000 | 164.0000 | 8.2500 |
| 9 | 100.0000 | 20.0000 | 0.0040 | 8.2600 | 0.0145 | 0.1130 | 446.0000 | 79.7000 | 7.1000 |
| 10 | 30.0000 | 10.0000 | 0.0040 | 8.1500 | 0.0110 | 0.0570 | 372.0000 | 27.9000 | 4.4400 |
| 11 | 30.0000 | 10.0000 | 0.0040 | 8.3300 | 0.0100 | 0.0600 | 391.0000 | 46.7000 | 3.3300 |
| 12 | 290.0000 | 70.0000 | 0.0200 | 8.1700 | 0.0110 | 0.0590 | 407.0000 | 37.8000 | 3.6100 |
| 13 | 320.0000 | 20.0000 | 8.2200 | 0.0080 | 0.0690 | 402.0000 | 36.1000 | 4.2800 | |
| 14 | 300.0000 | 40.0000 | 0.0020 | 8.0900 | 0.0110 | 0.0580 | 397.0000 | 36.4000 | 4.2600 |
| 15 | 340.0000 | 20.0000 | 0.0100 | 8.2500 | 0.0110 | 0.0580 | 387.0000 | 35.6000 | 4.1600 |
| 16 | 240.0000 | 140.0000 | 0.0040 | 8.1100 | 0.0205 | 0.1600 | 405.0000 | 82.7000 | 5.3500 |
| 17 | 240.0000 | 260.0000 | 0.0040 | 8.3100 | 0.0300 | 0.2420 | 377.0000 | 180.0000 | 11.5200 |
| 18 | 100.0000 | 1500.0000 | 0.0060 | 8.3100 | 0.0235 | 0.1970 | 395.0000 | 110.0000 | 7.5400 |
| 19 | 140.0000 | 320.0000 | 0.0040 | 8.2800 | 0.0255 | 0.1250 | 384.0000 | 149.0000 | 7.5400 |
| 20 | 200.0000 | 140.0000 | 0.0060 | 8.1800 | 0.0260 | 0.2000 | 374.0000 | 90.1000 | 7.6300 |
| 21 | 20.0000 | 10.0000 | 0.0020 | 8.1900 | 0.0110 | 0.0740 | 359.0000 | 33.6000 | 5.7800 |
| 22 | 70.0000 | 10.0000 | 0.0060 | 8.1700 | 0.0100 | 0.0100 | 336.0000 | 39.4000 | 6.7900 |
| 23 | 10.0000 | 20.0000 | 0.0040 | 8.1300 | 0.0100 | 0.0990 | 341.0000 | 59.9000 | 6.8300 |
| 24 | 20.0000 | 10.0000 | 0.0060 | 8.2900 | 0.0070 | 0.0490 | 388.0000 | 15.0000 | 3.9300 |
| 25 | 40.0000 | 20.0000 | 0.0040 | 8.1400 | 0.0070 | 0.0370 | 333.0000 | 9.7000 | 3.0000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #10

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.4543 | 0.2965 | -0.7812 | 0.6949 | 0.7710 | -0.0893 | 0.7995 | 0.6254 |
| 9 | 0.4543 | 1.0000 | 0.0733 | -0.4437 | 0.6954 | 0.6887 | 0.1038 | 0.6655 | 0.7132 |
| 46 | 0.2965 | 0.0733 | 1.0000 | -0.0632 | 0.0278 | 0.0300 | 0.0506 | 0.0454 | -0.0375 |
| 47 | -0.7812 | -0.4437 | -0.0632 | 1.0000 | -0.5843 | -0.8210 | 0.2783 | -0.8036 | -0.7084 |
| 48 | 0.6949 | 0.6954 | 0.0278 | -0.5843 | 1.0000 | 0.7809 | -0.0730 | 0.7647 | 0.8490 |
| 49 | 0.7710 | 0.6887 | 0.0300 | -0.8210 | 0.7809 | 1.0000 | -0.2052 | 0.9592 | 0.8788 |
| 50 | -0.0893 | 0.1038 | 0.0506 | 0.2783 | -0.0730 | -0.2052 | 1.0000 | -0.1040 | -0.2287 |
| 51 | 0.7995 | 0.6655 | 0.0454 | -0.8036 | 0.7647 | 0.9592 | -0.1040 | 1.0000 | 0.8518 |
| 52 | 0.6254 | 0.7132 | -0.0375 | -0.7084 | 0.8490 | 0.8788 | -0.2287 | 0.8518 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.4455 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.4892 | 0.3525 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -6.0010 | -2.3747 | -0.3038 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 4.6346 | 4.6402 | 0.1334 | -3.4529 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 5.8066 | 4.5557 | 0.1438 | -6.8970 | 5.9953 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.4299 | 0.5007 | 0.2430 | 1.3898 | -0.3512 | -1.0055 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 6.3826 | 4.2765 | 0.2177 | -6.4762 | 5.6917 | 16.2769 | -0.5015 | 0.0000 | 0.0000 |
| 52 | 3.8437 | 4.3795 | -0.1799 | -4.8129 | 7.7043 | 8.8329 | -1.1266 | 7.7989 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 600.0000 | 380.0000 | 0.0120 | 7.9900 | 0.1320 | 0.1630 | 640.0000 | 16.9000 | 0.5800 |
| 2 | 80.0000 | 20.0000 | 0.0140 | 7.8300 | 0.0170 | 0.0430 | 877.0000 | 7.2000 | 0.2000 |
| 3 | 1280.0000 | 740.0000 | 0.0040 | 7.2900 | 0.0350 | 0.8100 | 531.0000 | 278.0000 | 2.0800 |
| 4 | 660.0000 | 1320.0000 | 0.0120 | 7.7100 | 0.0410 | 0.5150 | 335.0000 | 393.0000 | 4.7100 |
| 5 | 1580.0000 | 1080.0000 | 0.0080 | 7.6400 | 0.0380 | 0.3200 | 480.0000 | 268.0000 | 2.4400 |
| 6 | 860.0000 | 520.0000 | 0.0040 | 7.9300 | 0.0275 | 0.1550 | 618.0000 | 80.8000 | 1.1100 |
| 7 | 420.0000 | 120.0000 | 0.0040 | 8.0100 | 0.0225 | 0.0950 | 639.0000 | 42.5000 | 0.8000 |
| 8 | 760.0000 | 340.0000 | 0.0080 | 8.0300 | 0.0170 | 0.1120 | 1096.0000 | 22.9000 | 0.5300 |
| 9 | 2400.0000 | 140.0000 | 0.0020 | 7.9400 | 0.0415 | 0.1000 | 1164.0000 | 21.5000 | 0.8400 |
| 10 | 440.0000 | 180.0000 | 0.0460 | 7.9500 | 0.0260 | 0.0950 | 2523.0000 | 43.7000 | 0.5900 |
| 11 | 160.0000 | 140.0000 | 0.0360 | 8.0100 | 0.0260 | 0.0980 | 1467.0000 | 16.2000 | 0.4100 |
| 12 | 920.0000 | 260.0000 | 0.0260 | 7.9800 | 0.0250 | 0.0490 | 1295.0000 | 11.3000 | 0.2800 |
| 13 | 480.0000 | 100.0000 | 0.0380 | 8.0800 | 0.0180 | 0.0840 | 1212.0000 | 8.4000 | 0.3200 |
| 14 | 740.0000 | 840.0000 | 0.2980 | 7.1900 | 0.0080 | 0.5000 | 3191.0000 | 174.0000 | 1.0500 |
| 15 | 1080.0000 | 1060.0000 | 0.0120 | 7.7700 | 0.0285 | 0.4270 | 1135.0000 | 124.0000 | 1.6400 |
| 16 | 1460.0000 | 500.0000 | 0.0080 | 7.3000 | 0.0250 | 0.4820 | 975.0000 | 73.9000 | 1.0800 |
| 17 | 520.0000 | 220.0000 | 0.0040 | 7.4500 | 0.0165 | 0.1610 | 881.0000 | 35.1000 | 1.0200 |
| 18 | 1260.0000 | 420.0000 | 0.0020 | 7.4300 | 0.0295 | 0.2100 | 765.0000 | 77.5000 | 1.4600 |
| 19 | 1300.0000 | 660.0000 | 0.0060 | 7.7900 | 0.0320 | 0.1800 | 695.0000 | 80.0000 | 1.5300 |
| 20 | 1900.0000 | 580.0000 | 0.0040 | 7.7800 | 0.0330 | 0.4870 | 673.0000 | 88.4000 | 1.4300 |
| 21 | 360.0000 | 160.0000 | 0.0020 | 8.1000 | 0.0270 | 0.1070 | 740.0000 | 35.4000 | 0.7300 |
| 22 | 140.0000 | 120.0000 | 0.0040 | 8.0600 | 0.0060 | 0.0420 | 836.0000 | 17.9000 | 0.4500 |
| 23 | 200.0000 | 240.0000 | 0.0480 | 8.0600 | 0.0135 | 0.0830 | 874.0000 | 6.9700 | 0.4500 |
| 24 | 210.0000 | 50.0000 | 0.0100 | 7.9900 | 0.0210 | 0.0460 | 868.0000 | 13.3000 | 0.4400 |
| 25 | 620.0000 | 120.0000 | 0.0120 | 8.0600 | 0.0350 | 0.0720 | 1049.0000 | 9.3000 | 0.3000 |
| 26 | 520.0000 | 80.0000 | 0.0040 | 7.8200 | 0.0100 | 0.0250 | 868.0000 | 3.7200 | 0.1700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Spring 1983
 Station #11

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.4329 | -0.1137 | -0.3898 | 0.2098 | 0.4819 | -0.1282 | 0.3241 | 0.3644 |
| 9 | 0.4329 | 1.0000 | 0.1953 | -0.5313 | 0.1765 | 0.7722 | -0.0905 | 0.8877 | 0.8653 |
| 46 | -0.1137 | 0.1953 | 1.0000 | -0.3762 | -0.2025 | 0.2235 | 0.8125 | 0.1472 | -0.0566 |
| 47 | -0.3898 | -0.5313 | -0.3762 | 1.0000 | 0.0901 | -0.7463 | -0.1680 | -0.5542 | -0.4376 |
| 48 | 0.2098 | 0.1765 | -0.2025 | 0.0901 | 1.0000 | 0.1124 | -0.2650 | 0.0943 | 0.1588 |
| 49 | 0.4819 | 0.7722 | 0.2235 | -0.7463 | 0.1124 | 1.0000 | -0.0255 | 0.7948 | 0.6821 |
| 50 | -0.1282 | -0.0905 | 0.8125 | -0.1680 | -0.2650 | -0.0255 | 1.0000 | -0.1500 | -0.3171 |
| 51 | 0.3241 | 0.8877 | 0.1472 | -0.5542 | 0.0943 | 0.7948 | -0.1500 | 1.0000 | 0.9311 |
| 52 | 0.3644 | 0.8653 | -0.0566 | -0.4376 | 0.1588 | 0.6821 | -0.3171 | 0.9311 | 1.0000 |

T STATISTIC FOR 24 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.3527 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.5607 | 0.9754 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.0737 | -3.0723 | -1.9890 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.0511 | 0.8783 | -1.0130 | 0.4432 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 2.6945 | 5.9536 | 1.1235 | -5.4921 | 0.5540 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.6335 | -0.4450 | 6.8286 | -0.8348 | -1.3461 | -0.1251 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.6782 | 9.4444 | 0.7290 | -3.2620 | 0.4640 | 6.4156 | -0.7432 | 0.0000 | 0.0000 |
| 52 | 1.9169 | 8.4582 | -0.2775 | -2.3844 | 0.7880 | 4.5701 | -1.6378 | 12.5099 | 0.0000 |

T 0.05[24] = 2.064 T 0.01[24] 2.797

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Spring 1983
Station #12

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 660.0000 | 380.0000 | 0.0020 | 7.7000 | 0.0355 | 0.0870 | 820.0000 | 6.0400 | 0.1000 |
| 2 | 640.0000 | 260.0000 | 0.0180 | 7.8200 | 0.0410 | 0.1440 | 0.0000 | 6.1400 | 0.0700 |
| 3 | 520.0000 | 660.0000 | 0.0560 | 7.2900 | 0.0780 | 0.2830 | 397.0000 | 77.1000 | 0.8800 |
| 4 | 300.0000 | 620.0000 | 0.1260 | 7.6200 | 0.0740 | 0.3300 | 309.0000 | 196.0000 | 1.7200 |
| 5 | 280.0000 | 680.0000 | 0.1080 | 7.3800 | 0.2050 | 0.2800 | 466.0000 | 71.6000 | 0.4300 |
| 6 | 200.0000 | 100.0000 | 0.0040 | 8.2300 | 0.0285 | 0.0750 | 751.0000 | 31.4000 | 0.1100 |
| 7 | 120.0000 | 40.0000 | 0.0040 | 7.8800 | 0.1950 | 0.3900 | 0.0000 | 15.0000 | 0.1000 |
| 8 | 200.0000 | 40.0000 | 0.0060 | 8.1200 | 0.0230 | 0.0580 | 1032.0000 | 10.7000 | 0.0700 |
| 9 | 440.0000 | 80.0000 | 0.0080 | 7.5700 | 0.1500 | 0.4200 | 1241.0000 | 13.9000 | 0.0900 |
| 10 | 1600.0000 | 1000.0000 | 0.3840 | 7.3100 | 0.6500 | 2.2000 | 2787.0000 | 169.0000 | 0.1900 |
| 11 | 600.0000 | 280.0000 | 0.0060 | 7.7600 | 0.0695 | 0.2370 | 1239.0000 | 35.2000 | 0.1600 |
| 12 | 920.0000 | 240.0000 | 0.0060 | 7.5200 | 0.0300 | 0.1000 | 1103.0000 | 19.6000 | 0.0300 |
| 13 | 1800.0000 | 300.0000 | 0.2560 | 7.3300 | 0.0180 | 0.4670 | 1616.0000 | 168.0000 | 0.5500 |
| 14 | 700.0000 | 1620.0000 | 0.2420 | 7.2700 | 0.0750 | 0.2000 | 715.0000 | 68.1000 | 0.7900 |
| 15 | 1300.0000 | 1140.0000 | 0.0100 | 7.5000 | 0.0540 | 0.1390 | 627.0000 | 30.3000 | 0.4600 |
| 16 | 280.0000 | 200.0000 | 0.0040 | 7.9400 | 0.0295 | 0.0580 | 919.0000 | 8.2200 | 0.2400 |
| 17 | 120.0000 | 280.0000 | 0.0040 | 7.6800 | 0.0405 | 0.1130 | 725.0000 | 15.8000 | 0.5900 |
| 18 | 700.0000 | 5000.0000 | 0.2200 | 7.4600 | 0.0940 | 0.2250 | 516.0000 | 149.0000 | 0.4700 |
| 19 | 460.0000 | 980.0000 | 0.0040 | 7.4900 | 0.0710 | 0.2470 | 505.0000 | 98.5000 | 0.2900 |
| 20 | 700.0000 | 400.0000 | 0.0040 | 7.9500 | 0.0620 | 0.2120 | 601.0000 | 43.8000 | 0.0900 |
| 21 | 220.0000 | 100.0000 | 0.0040 | 7.9200 | 0.0280 | 0.0780 | 363.0000 | 22.7000 | 0.0600 |
| 22 | 3200.0000 | 20.0000 | 0.0040 | 7.7900 | 0.0260 | 0.0520 | 1026.0000 | 10.1000 | 0.0900 |
| 23 | 110.0000 | 10.0000 | 0.0120 | 7.8200 | 0.0290 | 0.0660 | 984.0000 | 13.2000 | 0.0900 |
| 24 | 460.0000 | 220.0000 | 0.0040 | 8.0800 | 0.0230 | 0.0710 | 1108.0000 | 5.9000 | 0.0700 |
| 25 | 1220.0000 | 860.0000 | 0.0040 | 7.6700 | 0.5200 | 0.7200 | 891.0000 | 9.2900 | 0.0800 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Spring 1983

Station #12

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.1135 | -0.0140 | -0.2081 | -0.0072 | 0.0101 | 0.0468 | -0.0256 | 0.0478 |
| 9 | 0.1135 | 1.0000 | 0.4959 | -0.4314 | 0.1469 | 0.1225 | -0.0767 | 0.4829 | 0.2558 |
| 46 | -0.0140 | 0.4959 | 1.0000 | -0.6391 | 0.4608 | 0.6821 | 0.5082 | 0.8031 | 0.3840 |
| 47 | -0.2081 | -0.4314 | -0.6391 | 1.0000 | -0.3290 | -0.4183 | -0.2086 | -0.5877 | -0.4715 |
| 48 | -0.0072 | 0.1469 | 0.4608 | -0.3290 | 1.0000 | 0.8875 | 0.4781 | 0.2675 | -0.0896 |
| 49 | 0.0101 | 0.1225 | 0.6821 | -0.4183 | 0.8875 | 1.0000 | 0.6790 | 0.5035 | 0.0142 |
| 50 | 0.0468 | -0.0767 | 0.5082 | -0.2086 | 0.4781 | 0.6790 | 1.0000 | 0.2537 | -0.2173 |
| 51 | -0.0256 | 0.4829 | 0.8031 | -0.5877 | 0.2675 | 0.5035 | 0.2537 | 1.0000 | 0.6617 |
| 52 | 0.0478 | 0.2558 | 0.3840 | -0.4715 | -0.0896 | 0.0142 | -0.2173 | 0.6617 | 1.0000 |

T STATISTIC FOR 23 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.5481 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.0372 | 2.7389 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.0201 | -2.2936 | -3.9855 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.0343 | 0.7122 | 2.4900 | -1.6709 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 0.0454 | 0.5921 | 4.4731 | -2.2084 | 9.2376 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.2248 | -0.3687 | 2.8302 | -1.0229 | 2.6105 | 4.4352 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.1230 | 2.6448 | 6.4642 | -3.4832 | 1.3314 | 2.7948 | 1.2578 | 0.0000 | 0.0000 |
| 52 | 0.2296 | 1.2692 | 1.9946 | -2.5643 | -0.4315 | 0.0681 | -1.0675 | 4.2325 | 0.0000 |

T 0.05[23] = 2.069

T 0.01[23] = 2.807

Appendix J, Table 4
Correlations: Metals, Bacteria
and Residue Particulate,
Spring 1983

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1983
Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0007 | 0.0070 | 0.0150 | 0.0090 | 0.0090 | 0.0200 | 240.0000 | 260.0000 | 134.0000 | 3.8200 |
| 2 | 0.0006 | 0.0020 | 0.0090 | 0.0030 | 0.0030 | 0.0010 | 40.0000 | 20.0000 | 12.6000 | 2.3500 |
| 3 | 0.0009 | 0.0300 | 0.0270 | 0.0150 | 0.0590 | 0.1000 | 1360.0000 | 780.0000 | 161.0000 | 8.2200 |
| 4 | 0.0020 | 0.0250 | 0.0380 | 0.0280 | 0.0640 | 0.1100 | 1900.0000 | 1300.0000 | 581.0000 | 14.1000 |
| 5 | 0.0020 | 0.0200 | 0.0340 | 0.0280 | 0.0310 | 0.0730 | 840.0000 | 540.0000 | 594.0000 | 14.1700 |
| 6 | 0.0010 | 0.0130 | 0.0240 | 0.0190 | 0.0140 | 0.0380 | 620.0000 | 440.0000 | 403.0000 | 8.1200 |
| 7 | 0.0010 | 0.0100 | 0.0220 | 0.0160 | 0.0110 | 0.0340 | 340.0000 | 260.0000 | 285.0000 | 4.7500 |
| 8 | 0.0007 | 0.0050 | 0.0170 | 0.0070 | 0.0090 | 0.0180 | 520.0000 | 120.0000 | 106.0000 | 4.2400 |
| 9 | 0.0004 | 0.0040 | 0.0120 | 0.0050 | 0.0030 | 0.0120 | 560.0000 | 80.0000 | 69.6000 | 3.6200 |
| 10 | 0.0002 | 0.0040 | 0.0130 | 0.0030 | 0.0080 | 0.0120 | 110.0000 | 70.0000 | 23.7000 | 1.6200 |
| 11 | 0.0006 | 0.0030 | 0.0180 | 0.0030 | 0.0060 | 0.0140 | 160.0000 | 40.0000 | 18.8000 | 2.6500 |
| 12 | 0.0020 | 0.0090 | 0.0220 | 0.0090 | 0.0480 | 0.0150 | 180.0000 | 110.0000 | 16.7000 | 2.3000 |
| 13 | 0.0006 | 0.0050 | 0.0140 | 0.0040 | 0.0070 | 0.0270 | 220.0000 | 60.0000 | 16.9000 | 5.6300 |
| 14 | 0.0006 | 0.0040 | 0.0180 | 0.0040 | 0.0330 | 0.0350 | 4900.0000 | 1700.0000 | 34.9000 | 5.0600 |
| 15 | 0.0006 | 0.0090 | 0.0200 | 0.0060 | 0.0420 | 0.0520 | 720.0000 | 620.0000 | 53.1000 | 4.3400 |
| 16 | 0.0002 | 0.0030 | 0.0090 | 0.0010 | 0.0030 | 0.0200 | 340.0000 | 400.0000 | 146.0000 | 7.2300 |
| 17 | 0.0006 | 0.0050 | 0.0150 | 0.0060 | 0.0040 | 0.0160 | 60.0000 | 80.0000 | 87.4000 | 4.7900 |
| 18 | 0.0004 | 0.0030 | 0.0130 | 0.0030 | 0.0030 | 0.0020 | 80.0000 | 70.0000 | 29.4000 | 3.9600 |
| 19 | 0.0004 | 0.0030 | 0.0220 | 0.0030 | 0.0030 | 0.0080 | 70.0000 | 20.0000 | 34.1000 | 5.5500 |
| 20 | 0.0004 | 0.0100 | 0.0190 | 0.0100 | 0.0100 | 0.0180 | 320.0000 | 40.0000 | 37.4000 | 4.2400 |
| 21 | 0.0006 | 0.0020 | 0.0240 | 0.0010 | 0.0030 | 0.0070 | 60.0000 | 60.0000 | 6.0100 | 3.0000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #3

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.6515 | 0.7809 | 0.8032 | 0.6968 | 0.6069 | 0.1712 | 0.3516 | 0.6999 | 0.6174 |
| 2 | 0.6515 | 1.0000 | 0.7848 | 0.8438 | 0.8022 | 0.9340 | 0.2612 | 0.5038 | 0.7075 | 0.7511 |
| 3 | 0.7809 | 0.7848 | 1.0000 | 0.8332 | 0.6998 | 0.7810 | 0.2753 | 0.4792 | 0.7436 | 0.7475 |
| 5 | 0.8032 | 0.8438 | 0.8332 | 1.0000 | 0.6083 | 0.7944 | 0.2079 | 0.4351 | 0.9338 | 0.8339 |
| 6 | 0.6968 | 0.8022 | 0.6998 | 0.6083 | 1.0000 | 0.8397 | 0.5035 | 0.6968 | 0.4439 | 0.5282 |
| 7 | 0.6069 | 0.9340 | 0.7810 | 0.7944 | 0.8397 | 1.0000 | 0.4415 | 0.6964 | 0.7256 | 0.8152 |
| 8 | 0.1712 | 0.2612 | 0.2753 | 0.2079 | 0.5035 | 0.4415 | 1.0000 | 0.7186 | 0.1900 | 0.3142 |
| 9 | 0.3516 | 0.5038 | 0.4792 | 0.4351 | 0.6968 | 0.6964 | 0.9186 | 1.0000 | 0.4428 | 0.5530 |
| 51 | 0.6999 | 0.7075 | 0.7436 | 0.9338 | 0.4439 | 0.7256 | 0.1900 | 0.4428 | 1.0000 | 0.8978 |
| 52 | 0.6174 | 0.7511 | 0.7475 | 0.8339 | 0.5282 | 0.8152 | 0.3142 | 0.5530 | 0.8978 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|---------|--------|---------|--------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.7434 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.4494 | 5.5196 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 5.8778 | 6.8541 | 6.5671 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.2349 | 5.8575 | 4.2706 | 3.3404 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 3.3283 | 11.3985 | 5.4504 | 5.7003 | 6.7398 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.7575 | 1.1796 | 1.2483 | 0.9265 | 2.5400 | 2.1446 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.6370 | 2.5424 | 2.3801 | 2.1063 | 4.2350 | 4.2302 | 10.1351 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.2712 | 4.3636 | 4.8473 | 11.3793 | 2.1591 | 4.5969 | 0.8438 | 2.1526 | 0.0000 | 0.0000 |
| 52 | 3.4207 | 4.9595 | 4.9055 | 6.5866 | 2.7117 | 6.1350 | 1.4427 | 2.8932 | 8.8857 | 0.0000 |

T 0.05[19] = 2.093

T 0.01[19] = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #4

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0007 | 0.0070 | 0.0130 | 0.0030 | 0.0060 | 0.0270 | 100.0000 | 2700.0000 | 19.4000 | 1.5100 |
| 2 | 0.0006 | 0.0010 | 0.0130 | 0.0030 | 0.0060 | 0.0090 | 20.0000 | 20.0000 | 11.1000 | 0.3000 |
| 3 | 0.0020 | 0.0310 | 0.0420 | 0.0260 | 0.0920 | 0.2000 | 600.0000 | 860.0000 | 193.0000 | 12.5100 |
| 4 | 0.0020 | 0.0400 | 0.0430 | 0.0380 | 0.0610 | 0.1900 | 1000.0000 | 200.0000 | 758.0000 | 9.5700 |
| 5 | 0.0010 | 0.0200 | 0.0240 | 0.0170 | 0.0200 | 0.0930 | 320.0000 | 660.0000 | 257.0000 | 5.1500 |
| 6 | 0.0007 | 0.0090 | 0.0140 | 0.0060 | 0.0080 | 0.0350 | 160.0000 | 140.0000 | 65.8000 | 2.2100 |
| 7 | 0.0006 | 0.0070 | 0.0140 | 0.0040 | 0.0060 | 0.0300 | 240.0000 | 40.0000 | 30.6000 | 1.6700 |
| 8 | 0.0007 | 0.0250 | 0.0230 | 0.0020 | 0.0060 | 0.0250 | 40.0000 | 100.0000 | 11.1000 | 1.1900 |
| 9 | 0.0009 | 0.0120 | 0.0160 | 0.0090 | 0.0090 | 0.0230 | 660.0000 | 460.0000 | 6.7100 | 0.8700 |
| 10 | 0.0004 | 0.0050 | 0.0240 | 0.0030 | 0.0190 | 0.0400 | 130.0000 | 2500.0000 | 17.3000 | 1.2000 |
| 11 | 0.0006 | 0.0050 | 0.0190 | 0.0040 | 0.0060 | 0.0300 | 30.0000 | 70.0000 | 6.5200 | 0.9900 |
| 12 | 0.0002 | 0.0060 | 0.0220 | 0.0020 | 0.0060 | 0.0320 | 80.0000 | 1230.0000 | 5.9500 | 0.9000 |
| 13 | 0.0008 | 0.0070 | 0.0170 | 0.0040 | 0.0090 | 0.0390 | 160.0000 | 720.0000 | 3.7000 | 1.1100 |
| 14 | 0.0010 | 0.0140 | 0.0390 | 0.0120 | 0.1100 | 0.1600 | 140.0000 | 660.0000 | 92.8000 | 3.2800 |
| 15 | 0.0010 | 0.0180 | 0.0240 | 0.0080 | 0.0580 | 0.1200 | 120.0000 | 660.0000 | 78.6000 | 3.1400 |
| 16 | 0.0005 | 0.0080 | 0.0150 | 0.0050 | 0.0090 | 0.0480 | 140.0000 | 540.0000 | 52.4000 | 1.7500 |
| 17 | 0.0005 | 0.0090 | 0.0200 | 0.0020 | 0.0050 | 0.0210 | 290.0000 | 710.0000 | 21.8000 | 1.0100 |
| 18 | 0.0005 | 0.0080 | 0.0150 | 0.0040 | 0.0030 | 0.0180 | 10.0000 | 160.0000 | 7.0200 | 0.9100 |
| 19 | 0.0007 | 0.0200 | 0.0340 | 0.0100 | 0.0090 | 0.0240 | 110.0000 | 160.0000 | 6.8900 | 0.6400 |
| 20 | 0.0008 | 0.0040 | 0.0250 | 0.0020 | 0.0080 | 0.0150 | 60.0000 | 1500.0000 | 4.6300 | 0.4700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1963
 Station #4

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.8325 | 0.7344 | 0.9171 | 0.7155 | 0.8599 | 0.7846 | -0.1395 | 0.7724 | 0.9149 |
| 2 | 0.8325 | 1.0000 | 0.7685 | 0.8607 | 0.5742 | 0.7583 | 0.7043 | -0.2503 | 0.7703 | 0.8000 |
| 3 | 0.7344 | 0.7685 | 1.0000 | 0.7656 | 0.7922 | 0.8118 | 0.5143 | -0.0237 | 0.6129 | 0.7182 |
| 5 | 0.9171 | 0.8607 | 0.7656 | 1.0000 | 0.6532 | 0.8549 | 0.8456 | -0.1879 | 0.9113 | 0.8978 |
| 6 | 0.7155 | 0.5742 | 0.7922 | 0.6532 | 1.0000 | 0.9226 | 0.4150 | 0.0015 | 0.4705 | 0.7216 |
| 7 | 0.8599 | 0.7583 | 0.8118 | 0.8549 | 0.9226 | 1.0000 | 0.6223 | -0.0490 | 0.7242 | 0.9000 |
| 8 | 0.7846 | 0.7043 | 0.5143 | 0.8456 | 0.4150 | 0.6223 | 1.0000 | -0.1267 | 0.7901 | 0.7245 |
| 9 | -0.1395 | -0.2503 | -0.0237 | -0.1879 | 0.0015 | -0.0490 | -0.1267 | 1.0000 | -0.1551 | -0.0569 |
| 51 | 0.7724 | 0.7703 | 0.6129 | 0.9113 | 0.4705 | 0.7242 | 0.7901 | -0.1551 | 1.0000 | 0.7508 |
| 52 | 0.9149 | 0.8000 | 0.7182 | 0.8978 | 0.7216 | 0.9000 | 0.7245 | -0.0569 | 0.7508 | 1.0000 |

T STATISTIC FOR 18 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 6.3740 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 4.5912 | 5.0952 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 9.7570 | 7.1720 | 5.0492 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.3454 | 2.9759 | 5.5067 | 3.6596 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 7.1457 | 4.9346 | 5.8981 | 6.9900 | 10.1434 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 5.3681 | 4.2088 | 2.5444 | 6.7196 | 1.9352 | 3.3731 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.5979 | -1.0967 | -0.1008 | -0.8116 | 0.0063 | -0.2080 | -0.5420 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 5.1596 | 5.1257 | 3.2909 | 9.3906 | 2.2622 | 4.4551 | 5.4689 | -0.6662 | 0.0000 | 0.0000 |
| 52 | 9.6165 | 5.6562 | 4.3795 | 8.6470 | 4.4222 | 8.7582 | 4.4600 | -0.2419 | 4.8221 | 0.0000 |

T 0.05[18] = 2.101

T 0.01[18] = 2.878

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1983
Station #5

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|------------|------------|----------|--------|
| 1 | 0.0006 | 0.0120 | 0.0180 | 0.0080 | 0.0100 | 0.0300 | 540.0000 | 540.0000 | 14.7000 | 0.7800 |
| 2 | 0.0005 | 0.0010 | 0.0250 | 0.0080 | 0.0060 | 0.0280 | 80.0000 | 40.0000 | 6.5600 | 0.2700 |
| 3 | 0.0010 | 0.0140 | 0.0370 | 0.0190 | 0.1400 | 0.1600 | 1200.0000 | 1900.0000 | 151.0000 | 3.8200 |
| 4 | 0.0020 | 0.0230 | 0.0470 | 0.0270 | 0.1600 | 0.2000 | 11900.0000 | 4100.0000 | 337.0000 | 9.6500 |
| 5 | 0.0008 | 0.0180 | 0.0250 | 0.0170 | 0.0400 | 0.0770 | 1440.0000 | 1580.0000 | 229.0000 | 3.5500 |
| 6 | 0.0007 | 0.0100 | 0.0190 | 0.0090 | 0.0120 | 0.0380 | 1020.0000 | 280.0000 | 76.3000 | 1.5500 |
| 7 | 0.0006 | 0.0080 | 0.0180 | 0.0070 | 0.0090 | 0.0300 | 1260.0000 | 220.0000 | 36.6000 | 1.0500 |
| 8 | 0.0007 | 0.0070 | 0.0180 | 0.0050 | 0.0070 | 0.0340 | 1660.0000 | 220.0000 | 16.2000 | 0.7300 |
| 9 | 0.0008 | 0.0110 | 0.0190 | 0.0070 | 0.0080 | 0.0340 | 2800.0000 | 180.0000 | 14.7000 | 0.5700 |
| 10 | 0.0030 | 0.0120 | 0.0330 | 0.0150 | 0.0920 | 0.0580 | 1580.0000 | 220.0000 | 33.2000 | 0.8400 |
| 11 | 0.0007 | 0.0040 | 0.0240 | 0.0100 | 0.0310 | 0.0530 | 260.0000 | 80.0000 | 20.9000 | 0.5200 |
| 12 | 0.0007 | 0.0080 | 0.0220 | 0.0070 | 0.0190 | 0.0500 | 960.0000 | 100.0000 | 12.8000 | 0.5100 |
| 13 | 0.0002 | 0.0130 | 0.0280 | 0.0050 | 0.0310 | 0.0510 | 2100.0000 | 780.0000 | 8.7200 | 0.3600 |
| 14 | 0.0008 | 0.0090 | 0.0200 | 0.0060 | 0.0110 | 0.0550 | 880.0000 | 380.0000 | 5.3900 | 0.4100 |
| 15 | 0.0010 | 0.0140 | 0.0420 | 0.0100 | 0.1200 | 0.1300 | 69000.0000 | 12100.0000 | 68.4000 | 1.7500 |
| 16 | 0.0020 | 0.0130 | 0.0390 | 0.0120 | 0.1700 | 0.1700 | 3700.0000 | 1100.0000 | 71.6000 | 2.2200 |
| 17 | 0.0008 | 0.0120 | 0.0320 | 0.0120 | 0.0760 | 0.1100 | 2600.0000 | 600.0000 | 74.4000 | 2.4600 |
| 18 | 0.0004 | 0.0070 | 0.0220 | 0.0100 | 0.0040 | 0.0220 | 300.0000 | 240.0000 | 9.7000 | 0.6300 |
| 19 | 0.0005 | 0.0080 | 0.0300 | 0.0060 | 0.0030 | 0.0290 | 680.0000 | 160.0000 | 6.3500 | 0.6000 |
| 20 | 0.0003 | 0.0120 | 0.0290 | 0.0070 | 0.0120 | 0.0540 | 400.0000 | 50.0000 | 10.5000 | 0.7300 |
| 21 | 0.0007 | 0.0100 | 0.0380 | 0.0050 | 0.0180 | 0.0380 | 3900.0000 | 1300.0000 | 3.9400 | 0.5200 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #5

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.4302 | 0.5191 | 0.6090 | 0.7023 | 0.5394 | 0.1174 | 0.1721 | 0.4020 | 0.4377 |
| 2 | 0.4302 | 1.0000 | 0.5820 | 0.7027 | 0.6420 | 0.7037 | 0.2743 | 0.4314 | 0.7951 | 0.7828 |
| 3 | 0.5191 | 0.5820 | 1.0000 | 0.5910 | 0.8216 | 0.7984 | 0.4722 | 0.5855 | 0.5194 | 0.6065 |
| 5 | 0.6090 | 0.7027 | 0.5910 | 1.0000 | 0.7505 | 0.7742 | 0.1044 | 0.2845 | 0.9096 | 0.9030 |
| 6 | 0.7023 | 0.6420 | 0.8216 | 0.7505 | 1.0000 | 0.9545 | 0.3977 | 0.5206 | 0.6346 | 0.6896 |
| 7 | 0.5394 | 0.7037 | 0.7984 | 0.7742 | 0.9545 | 1.0000 | 0.3734 | 0.5199 | 0.7387 | 0.7977 |
| 8 | 0.1174 | 0.2743 | 0.4722 | 0.1044 | 0.3977 | 0.3734 | 1.0000 | 0.9735 | 0.1502 | 0.1584 |
| 9 | 0.1721 | 0.4314 | 0.5855 | 0.2845 | 0.5206 | 0.5199 | 0.9735 | 1.0000 | 0.3423 | 0.3458 |
| 51 | 0.4020 | 0.7951 | 0.5194 | 0.9096 | 0.6346 | 0.7387 | 0.1502 | 0.3423 | 1.0000 | 0.9577 |
| 52 | 0.4377 | 0.7828 | 0.6065 | 0.9030 | 0.6896 | 0.7977 | 0.1584 | 0.3458 | 0.9577 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 2.0775 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 2.6475 | 3.1199 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 3.3464 | 4.3052 | 3.1937 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.2999 | 3.6499 | 6.2823 | 4.9505 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 2.7926 | 4.3166 | 5.7788 | 5.3323 | 13.9541 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.5153 | 1.2435 | 2.3351 | 0.4575 | 1.8892 | 1.7543 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.7616 | 2.0843 | 3.1484 | 1.2935 | 2.6577 | 2.6530 | 18.5631 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.9138 | 5.7144 | 2.6496 | 9.5410 | 3.5796 | 4.7766 | 0.6622 | 1.5882 | 0.0000 | 0.0000 |
| 52 | 2.1217 | 5.4832 | 3.3248 | 9.1624 | 4.1510 | 5.7650 | 0.6994 | 1.6064 | 14.4980 | 0.0000 |

T 0.05[19] = 2.093

T 0.01[19] = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #6

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0080 | 0.0190 | 0.0090 | 0.0060 | 0.0240 | 240.0000 | 340.0000 | 160.0000 | 20.7600 |
| 2 | 0.0010 | 0.0020 | 0.0120 | 0.0020 | 0.0060 | 0.0010 | 20.0000 | 20.0000 | 17.8000 | 5.0900 |
| 3 | 0.0009 | 0.0280 | 0.0220 | 0.0120 | 0.0400 | 0.0820 | 460.0000 | 780.0000 | 140.0000 | 20.5700 |
| 4 | 0.0020 | 0.0260 | 0.0370 | 0.0300 | 0.0470 | 0.1000 | 1060.0000 | 820.0000 | 765.0000 | 44.0200 |
| 5 | 0.0020 | 0.0200 | 0.0340 | 0.0310 | 0.0270 | 0.0700 | 680.0000 | 780.0000 | 610.0000 | 64.3600 |
| 6 | 0.0010 | 0.0120 | 0.0230 | 0.0190 | 0.0110 | 0.0360 | 300.0000 | 1160.0000 | 402.0000 | 32.7700 |
| 7 | 0.0007 | 0.0090 | 0.0220 | 0.0130 | 0.0070 | 0.0300 | 340.0000 | 300.0000 | 322.0000 | 25.5600 |
| 8 | 0.0008 | 0.0050 | 0.0160 | 0.0080 | 0.0100 | 0.0130 | 300.0000 | 240.0000 | 120.0000 | 15.2100 |
| 9 | 0.0007 | 0.0040 | 0.0130 | 0.0070 | 0.0050 | 0.0120 | 340.0000 | 80.0000 | 76.4000 | 12.0400 |
| 10 | 0.0010 | 0.0040 | 0.0140 | 0.0060 | 0.0180 | 0.0100 | 20.0000 | 20.0000 | 23.2000 | 7.2600 |
| 11 | 0.0008 | 0.0060 | 0.0150 | 0.0040 | 0.0080 | 0.0140 | 70.0000 | 20.0000 | 20.6000 | 5.4500 |
| 12 | 0.0002 | 0.0020 | 0.0120 | 0.0020 | 0.0050 | 0.0080 | 110.0000 | 530.0000 | 22.0000 | 5.7100 |
| 13 | 0.0006 | 0.0040 | 0.0120 | 0.0040 | 0.0070 | 0.0130 | 80.0000 | 60.0000 | 21.2000 | 5.9000 |
| 14 | 0.0009 | 0.0060 | 0.0200 | 0.0050 | 0.0480 | 0.0460 | 1760.0000 | 780.0000 | 45.5000 | 8.0200 |
| 15 | 0.0007 | 0.0190 | 0.0170 | 0.0060 | 0.0300 | 0.0400 | 540.0000 | 260.0000 | 43.4000 | 8.7400 |
| 16 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 220.0000 | 540.0000 | 108.0000 | 16.4800 |
| 17 | 0.0005 | 0.0030 | 0.0100 | 0.0030 | 0.0030 | 0.0030 | 30.0000 | 90.0000 | 36.2000 | 11.3000 |
| 18 | 0.0006 | 0.0030 | 0.0240 | 0.0030 | 0.0030 | 0.0090 | 20.0000 | 20.0000 | 30.7000 | 12.2700 |
| 19 | 0.0005 | 0.0070 | 0.0240 | 0.0070 | 0.0080 | 0.0160 | 50.0000 | 20.0000 | 48.4000 | 11.6700 |
| 20 | 0.0005 | 0.0020 | 0.0190 | 0.0010 | 0.0030 | 0.0040 | 110.0000 | 30.0000 | 7.8700 | 5.9000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #6

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.6768 | 0.7879 | 0.8710 | 0.6440 | 0.7582 | 0.4815 | 0.4225 | 0.7923 | 0.7522 |
| 2 | 0.6768 | 1.0000 | 0.6998 | 0.7624 | 0.7647 | 0.9427 | 0.4597 | 0.5898 | 0.6713 | 0.6455 |
| 3 | 0.7879 | 0.6998 | 1.0000 | 0.8233 | 0.5696 | 0.7686 | 0.4426 | 0.4175 | 0.7410 | 0.7097 |
| 5 | 0.8710 | 0.7624 | 0.8233 | 1.0000 | 0.5423 | 0.8232 | 0.4371 | 0.6419 | 0.9571 | 0.9390 |
| 6 | 0.6440 | 0.7647 | 0.5696 | 0.5423 | 1.0000 | 0.8641 | 0.8387 | 0.5797 | 0.4599 | 0.3802 |
| 7 | 0.7582 | 0.9427 | 0.7686 | 0.8232 | 0.8641 | 1.0000 | 0.6707 | 0.6990 | 0.7625 | 0.7059 |
| 8 | 0.4815 | 0.4597 | 0.4426 | 0.4371 | 0.8387 | 0.6707 | 1.0000 | 0.6144 | 0.4299 | 0.3562 |
| 9 | 0.4225 | 0.5898 | 0.4175 | 0.6419 | 0.5797 | 0.6990 | 0.6144 | 1.0000 | 0.6632 | 0.6456 |
| 51 | 0.7923 | 0.6713 | 0.7410 | 0.9571 | 0.4599 | 0.7625 | 0.4299 | 0.6632 | 1.0000 | 0.9313 |
| 52 | 0.7522 | 0.6455 | 0.7097 | 0.9390 | 0.3802 | 0.7059 | 0.3562 | 0.6456 | 0.9313 | 1.0000 |

T STATISTIC FOR 18 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|---------|--------|---------|--------|--------|--------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.9004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.4283 | 4.1564 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 7.5209 | 4.9983 | 6.1541 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 3.5714 | 5.0355 | 2.9401 | 2.7383 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 4.9340 | 11.9915 | 5.0981 | 6.1512 | 7.2851 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 2.3310 | 2.1960 | 2.0943 | 2.0620 | 6.5342 | 3.8362 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.9778 | 3.0989 | 1.9492 | 3.5516 | 3.0184 | 4.1465 | 3.3035 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 5.5099 | 3.8428 | 4.6813 | 14.0217 | 2.1971 | 5.0001 | 2.0203 | 3.7595 | 0.0000 | 0.0000 |
| 52 | 4.8430 | 3.5861 | 4.2735 | 11.5818 | 1.7443 | 4.2284 | 1.6172 | 3.5870 | 10.8499 | 0.0000 |

T 0.05[18] = 2.101

T 0.01[18] = 2.878

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Spring 1983

Station #7

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|----------|-----------|----------|---------|
| 1 | 0.0004 | 0.0060 | 0.0160 | 0.0110 | 0.0080 | 0.0150 | 100.0000 | 320.0000 | 149.0000 | 19.7700 |
| 2 | 0.0002 | 0.0020 | 0.0110 | 0.0030 | 0.0090 | 0.0010 | 20.0000 | 20.0000 | 19.9000 | 7.6700 |
| 3 | 0.0008 | 0.0310 | 0.0230 | 0.0110 | 0.0380 | 0.1000 | 560.0000 | 640.0000 | 119.0000 | 20.1600 |
| 4 | 0.0010 | 0.0280 | 0.0370 | 0.0280 | 0.0360 | 0.0870 | 440.0000 | 720.0000 | 751.0000 | 46.9200 |
| 5 | 0.0010 | 0.0190 | 0.0320 | 0.0270 | 0.0200 | 0.0670 | 600.0000 | 1520.0000 | 597.0000 | 72.7000 |
| 6 | 0.0010 | 0.0120 | 0.0230 | 0.0180 | 0.0150 | 0.0360 | 600.0000 | 2100.0000 | 423.0000 | 41.4800 |
| 7 | 0.0008 | 0.0090 | 0.0210 | 0.0140 | 0.0090 | 0.0280 | 240.0000 | 220.0000 | 354.0000 | 28.6400 |
| 8 | 0.0005 | 0.0040 | 0.0130 | 0.0060 | 0.0050 | 0.0130 | 280.0000 | 220.0000 | 132.0000 | 17.1100 |
| 9 | 0.0006 | 0.0040 | 0.0130 | 0.0050 | 0.0090 | 0.0170 | 140.0000 | 40.0000 | 81.2000 | 13.9300 |
| 10 | 0.0009 | 0.0030 | 0.0140 | 0.0080 | 0.0170 | 0.0080 | 10.0000 | 50.0000 | 26.8000 | 9.9400 |
| 11 | 0.0005 | 0.0060 | 0.0110 | 0.0040 | 0.0040 | 0.0110 | 20.0000 | 10.0000 | 23.9000 | 8.0200 |
| 12 | 0.0002 | 0.0030 | 0.0110 | 0.0020 | 0.0040 | 0.0070 | 80.0000 | 110.0000 | 21.7000 | 7.6700 |
| 13 | 0.0006 | 0.0050 | 0.0170 | 0.0040 | 0.0240 | 0.0260 | 20.0000 | 140.0000 | 35.5000 | 11.0200 |
| 14 | 0.0007 | 0.0220 | 0.0190 | 0.0060 | 0.0330 | 0.0440 | 420.0000 | 320.0000 | 43.6000 | 11.9600 |
| 15 | 0.0004 | 0.0040 | 0.0170 | 0.0060 | 0.0030 | 0.0130 | 220.0000 | 1560.0000 | 62.9000 | 19.3800 |
| 16 | 0.0004 | 0.0020 | 0.0120 | 0.0020 | 0.0030 | 0.0010 | 70.0000 | 90.0000 | 29.7000 | 12.9300 |
| 17 | 0.0003 | 0.0030 | 0.0100 | 0.0030 | 0.0030 | 0.0050 | 40.0000 | 20.0000 | 33.2000 | 13.5900 |
| 18 | 0.0005 | 0.0260 | 0.0190 | 0.0160 | 0.0080 | 0.0090 | 30.0000 | 10.0000 | 51.9000 | 13.9300 |
| 19 | 0.0004 | 0.0020 | 0.0100 | 0.0010 | 0.0030 | 0.0040 | 130.0000 | 60.0000 | 10.4000 | 8.5700 |
| 20 | 0.0004 | 0.0040 | 0.0170 | 0.0010 | 0.0030 | 0.0050 | 60.0000 | 60.0000 | 6.0200 | 6.7400 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1983
Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.5848 | 0.7886 | 0.7968 | 0.6783 | 0.7185 | 0.7093 | 0.5377 | 0.7470 | 0.7246 |
| 2 | 0.5848 | 1.0000 | 0.7643 | 0.7017 | 0.7739 | 0.8316 | 0.6556 | 0.3045 | 0.5198 | 0.4847 |
| 3 | 0.7886 | 0.7643 | 1.0000 | 0.9155 | 0.6930 | 0.8350 | 0.7473 | 0.5901 | 0.8918 | 0.8418 |
| 5 | 0.7968 | 0.7017 | 0.9155 | 1.0000 | 0.5259 | 0.6998 | 0.6787 | 0.5865 | 0.9176 | 0.8942 |
| 6 | 0.6783 | 0.7739 | 0.6930 | 0.5259 | 1.0000 | 0.8745 | 0.6278 | 0.2565 | 0.4651 | 0.3920 |
| 7 | 0.7185 | 0.8316 | 0.8350 | 0.6998 | 0.8745 | 1.0000 | 0.8212 | 0.4644 | 0.6814 | 0.6475 |
| 8 | 0.7093 | 0.6556 | 0.7473 | 0.6787 | 0.6278 | 0.8212 | 1.0000 | 0.7605 | 0.7073 | 0.7640 |
| 9 | 0.5377 | 0.3045 | 0.5901 | 0.5865 | 0.2565 | 0.4644 | 0.7605 | 1.0000 | 0.5995 | 0.7282 |
| 51 | 0.7470 | 0.5198 | 0.8918 | 0.9176 | 0.4651 | 0.6814 | 0.7073 | 0.5995 | 1.0000 | 0.9185 |
| 52 | 0.7246 | 0.4847 | 0.8418 | 0.8942 | 0.3920 | 0.6475 | 0.7640 | 0.7282 | 0.9185 | 1.0000 |

T STATISTIC FOR 18 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.0588 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.4405 | 5.0285 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 5.5946 | 4.1785 | 9.6576 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 3.9166 | 5.1842 | 4.0782 | 2.6232 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 4.3832 | 6.3540 | 6.4392 | 4.1567 | 7.6488 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 4.2692 | 3.6838 | 4.7708 | 3.9206 | 3.4219 | 6.1056 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.7059 | 1.3561 | 3.1011 | 3.0722 | 1.1259 | 2.2250 | 4.9689 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.7677 | 2.5816 | 8.3625 | 9.7912 | 2.2293 | 3.9500 | 4.2451 | 3.1774 | 0.0000 | 0.0000 |
| 52 | 4.4610 | 2.3510 | 6.6165 | 8.4764 | 1.8076 | 3.6049 | 5.0234 | 4.5083 | 9.8570 | 0.0000 |

T 0.05[18] = 2.101

T 0.01[18] = 2.878

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Spring 1983

Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|----------|-----------|----------|---------|
| 1 | 0.0005 | 0.0040 | 0.0120 | 0.0060 | 0.0050 | 0.0100 | 160.0000 | 220.0000 | 77.1000 | 7.7000 |
| 2 | 0.0002 | 0.0020 | 0.0100 | 0.0040 | 0.0030 | 0.0150 | 20.0000 | 20.0000 | 13.3000 | 1.9000 |
| 3 | 0.0007 | 0.0080 | 0.0220 | 0.0110 | 0.0420 | 0.0740 | 460.0000 | 540.0000 | 235.0000 | 5.9000 |
| 4 | 0.0007 | 0.0100 | 0.0220 | 0.0160 | 0.0300 | 0.0520 | 320.0000 | 500.0000 | 677.0000 | 15.2400 |
| 5 | 0.0010 | 0.0120 | 0.0220 | 0.0190 | 0.0130 | 0.0450 | 800.0000 | 1840.0000 | 765.0000 | 30.0000 |
| 6 | 0.0009 | 0.0090 | 0.0190 | 0.0150 | 0.0060 | 0.0310 | 820.0000 | 8400.0000 | 216.0000 | 17.1900 |
| 7 | 0.0007 | 0.0080 | 0.0170 | 0.0120 | 0.0030 | 0.0260 | 570.0000 | 500.0000 | 145.0000 | 10.4900 |
| 8 | 0.0007 | 0.0050 | 0.0140 | 0.0080 | 0.0450 | 0.0220 | 340.0000 | 320.0000 | 88.2000 | 5.1700 |
| 9 | 0.0007 | 0.0040 | 0.0140 | 0.0070 | 0.0040 | 0.0260 | 100.0000 | 160.0000 | 65.7000 | 5.3800 |
| 10 | 0.0009 | 0.0030 | 0.0140 | 0.0060 | 0.0120 | 0.0080 | 10.0000 | 10.0000 | 31.3000 | 2.1100 |
| 11 | 0.0006 | 0.0020 | 0.0130 | 0.0040 | 0.0150 | 0.0130 | 20.0000 | 20.0000 | 17.8000 | 0.9600 |
| 12 | 0.0032 | 0.0020 | 0.0120 | 0.0020 | 0.0050 | 0.0290 | 250.0000 | 20.0000 | 20.4000 | 1.0400 |
| 13 | 0.0006 | 0.0050 | 0.0220 | 0.0040 | 0.0550 | 0.0500 | 420.0000 | 220.0000 | 40.4000 | 1.6200 |
| 14 | 0.0007 | 0.0070 | 0.0120 | 0.0030 | 0.0080 | 0.0130 | 580.0000 | 220.0000 | 24.1000 | 1.5200 |
| 15 | 0.0003 | 0.0030 | 0.0130 | 0.0030 | 0.0030 | 0.0230 | 60.0000 | 260.0000 | 18.3000 | 2.7000 |
| 16 | 0.0005 | 0.0030 | 0.0190 | 0.0050 | 0.0840 | 0.0120 | 20.0000 | 100.0000 | 41.9000 | 2.1000 |
| 17 | 0.0005 | 0.0080 | 0.0180 | 0.0080 | 0.0080 | 0.0160 | 20.0000 | 920.0000 | 56.3000 | 1.7000 |
| 18 | 0.0020 | 0.0040 | 0.0240 | 0.0030 | 0.0050 | 0.0080 | 40.0000 | 50.0000 | 11.3000 | 0.7700 |
| 19 | 0.0010 | 0.0030 | 0.0230 | 0.0030 | 0.0150 | 0.0190 | 60.0000 | 40.0000 | 4.7000 | 0.4400 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1987
Station #0

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|--------|--------|---------|---------|---------|---------|--------|---------|
| 1 | 1.0000 | 0.2193 | 0.6245 | 0.1466 | -0.0956 | -0.0823 | 0.1090 | 0.1375 | 0.1415 | 0.1549 |
| 2 | 0.2193 | 1.0000 | 0.4955 | 0.8832 | -0.0033 | 0.5718 | 0.7721 | 0.4696 | 0.8044 | 0.7994 |
| 3 | 0.6245 | 0.4955 | 1.0000 | 0.4126 | 0.3625 | 0.4959 | 0.2633 | 0.1898 | 0.4463 | 0.3210 |
| 5 | 0.1466 | 0.8832 | 0.4126 | 1.0000 | 0.0214 | 0.5562 | 0.6768 | 0.5337 | 0.8795 | 0.9164 |
| 6 | -0.0956 | -0.0033 | 0.3625 | 0.0214 | 1.0000 | 0.3053 | -0.0045 | -0.1459 | 0.0618 | -0.0929 |
| 7 | -0.0823 | 0.5718 | 0.4959 | 0.5562 | 0.3053 | 1.0000 | 0.5468 | 0.1675 | 0.5965 | 0.4452 |
| 8 | 0.1090 | 0.7721 | 0.2633 | 0.6768 | -0.0045 | 0.5468 | 1.0000 | 0.6136 | 0.5737 | 0.7274 |
| 9 | 0.1375 | 0.4696 | 0.1898 | 0.5337 | -0.1459 | 0.1675 | 0.6136 | 1.0000 | 0.2640 | 0.5282 |
| 51 | 0.1415 | 0.8044 | 0.4463 | 0.8795 | 0.0618 | 0.5965 | 0.5737 | 0.2640 | 1.0000 | 0.6915 |
| 52 | 0.1549 | 0.7994 | 0.3210 | 0.9164 | -0.0929 | 0.4452 | 0.7274 | 0.5282 | 0.6915 | 1.0000 |

T STATISTIC FOR 17 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|--------|--------|---------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 0.9268 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 3.2969 | 2.3523 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 0.6110 | 7.7629 | 1.8674 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | -0.3959 | -0.0136 | 1.6036 | 0.0881 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | -0.3405 | 2.8735 | 2.3547 | 2.7596 | 1.3217 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.4519 | 5.0093 | 1.1251 | 3.7905 | -0.0187 | 2.6928 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.5724 | 2.1931 | 0.7972 | 2.6022 | -0.6079 | 0.7003 | 3.2042 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.5894 | 5.5824 | 2.0566 | 7.6217 | 0.2552 | 3.0646 | 2.9877 | 1.1287 | 0.0000 | 0.0000 |
| 52 | 0.6465 | 5.4869 | 1.3975 | 9.4397 | -0.3848 | 2.0497 | 4.3700 | 2.5650 | 8.1154 | 0.0000 |

T 0.05(17) = 2.110

T 0.01(17) = 2.898

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #9

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0080 | 0.0180 | 0.0120 | 0.0080 | 0.0200 | 200.0000 | 300.0000 | 201.0000 | 7.9500 |
| 2 | 0.0002 | 0.0070 | 0.0100 | 0.0020 | 0.0030 | 0.0040 | 20.0000 | 20.0000 | 16.8000 | 1.8500 |
| 3 | 0.0009 | 0.0510 | 0.0220 | 0.0120 | 0.0260 | 0.0480 | 1100.0000 | 340.0000 | 118.0000 | 6.9600 |
| 4 | 0.0020 | 0.0320 | 0.0450 | 0.0410 | 0.0340 | 0.0930 | 760.0000 | 1280.0000 | 832.0000 | 16.0400 |
| 5 | 0.0010 | 0.0200 | 0.0340 | 0.0270 | 0.0210 | 0.0640 | 400.0000 | 900.0000 | 618.0000 | 7.9700 |
| 6 | 0.0010 | 0.0140 | 0.0290 | 0.0230 | 0.0140 | 0.0420 | 340.0000 | 940.0000 | 315.0000 | 17.0400 |
| 7 | 0.0008 | 0.0110 | 0.0240 | 0.0160 | 0.0090 | 0.0320 | 300.0000 | 160.0000 | 359.0000 | 13.6800 |
| 8 | 0.0006 | 0.0040 | 0.0140 | 0.0060 | 0.0070 | 0.0100 | 220.0000 | 60.0000 | 158.0000 | 7.3100 |
| 9 | 0.0006 | 0.0040 | 0.0160 | 0.0060 | 0.0070 | 0.0120 | 300.0000 | 40.0000 | 91.5000 | 4.3600 |
| 10 | 0.0006 | 0.0040 | 0.0120 | 0.0040 | 0.0060 | 0.0030 | 20.0000 | 30.0000 | 28.6000 | 3.2200 |
| 11 | 0.0005 | 0.0040 | 0.0120 | 0.0050 | 0.0060 | 0.0100 | 60.0000 | 10.0000 | 34.9000 | 3.6400 |
| 12 | 0.0002 | 0.0020 | 0.0100 | 0.0030 | 0.0030 | 0.0060 | 140.0000 | 70.0000 | 45.0000 | 3.4200 |
| 13 | 0.0007 | 0.0200 | 0.0240 | 0.0090 | 0.0560 | 0.0680 | 80.0000 | 240.0000 | 77.0000 | 5.4100 |
| 14 | 0.0007 | 0.0110 | 0.0130 | 0.0050 | 0.0080 | 0.0170 | 300.0000 | 260.0000 | 43.8000 | 4.5400 |
| 15 | 0.0004 | 0.0020 | 0.0140 | 0.0020 | 0.0030 | 0.0130 | 20.0000 | 10.0000 | 37.7000 | 6.1000 |
| 16 | 0.0004 | 0.0030 | 0.0120 | 0.0030 | 0.0030 | 0.0040 | 30.0000 | 30.0000 | 39.9000 | 7.1500 |
| 17 | 0.0004 | 0.0120 | 0.0170 | 0.0080 | 0.0080 | 0.0170 | 70.0000 | 30.0000 | 54.4000 | 7.1000 |
| 18 | 0.0004 | 0.0060 | 0.0150 | 0.0020 | 0.0030 | 0.0030 | 100.0000 | 10.0000 | 8.9800 | 4.1500 |
| 19 | 0.0004 | 0.0020 | 0.2000 | 0.0010 | 0.0030 | 0.0030 | 40.0000 | 20.0000 | 6.0600 | 2.7200 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1983
Station #9

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|---------|---------|--------|---------|--------|---------|--------|--------|---------|
| 1 | 1.0000 | 0.6536 | 0.0436 | 0.9289 | 0.5924 | 0.8624 | 0.7074 | 0.8894 | 0.8850 | 0.7509 |
| 2 | 0.6536 | 1.0000 | -0.0460 | 0.5954 | 0.6765 | 0.7566 | 0.9001 | 0.5812 | 0.4819 | 0.4043 |
| 3 | 0.0436 | -0.0460 | 1.0000 | 0.0023 | -0.0181 | 0.0007 | -0.0369 | 0.0493 | 0.0309 | -0.0645 |
| 5 | 0.9289 | 0.5954 | 0.0023 | 1.0000 | 0.5362 | 0.8744 | 0.6296 | 0.9517 | 0.9677 | 0.8195 |
| 6 | 0.5924 | 0.6765 | -0.0181 | 0.5362 | 1.0000 | 0.8602 | 0.4438 | 0.5265 | 0.4388 | 0.3258 |
| 7 | 0.8624 | 0.7566 | 0.0007 | 0.8744 | 0.8602 | 1.0000 | 0.6484 | 0.8452 | 0.8106 | 0.6434 |
| 8 | 0.7074 | 0.9001 | -0.0369 | 0.6296 | 0.4438 | 0.6484 | 1.0000 | 0.6111 | 0.5593 | 0.4810 |
| 9 | 0.8894 | 0.5812 | 0.0493 | 0.9517 | 0.5265 | 0.8452 | 0.6111 | 1.0000 | 0.8970 | 0.7595 |
| 51 | 0.8850 | 0.4819 | 0.0309 | 0.9677 | 0.4388 | 0.8106 | 0.5593 | 0.8970 | 1.0000 | 0.7604 |
| 52 | 0.7509 | 0.4043 | -0.0645 | 0.8195 | 0.3258 | 0.6434 | 0.4810 | 0.7595 | 0.7604 | 1.0000 |

T STATISTIC FOR 17 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.5609 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.1882 | -0.1897 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 10.3411 | 3.0556 | 0.0095 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 3.0315 | 3.7877 | -0.0745 | 2.6191 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 7.0254 | 4.7701 | 0.0028 | 7.4304 | 6.9547 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 4.1261 | 8.5160 | -0.1521 | 3.3416 | 2.0420 | 3.5114 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 8.0234 | 2.9444 | 0.2633 | 12.7872 | 2.5533 | 6.5198 | 3.1828 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 7.8388 | 2.2675 | 0.1275 | 15.8253 | 2.0131 | 5.7077 | 2.7821 | 8.3686 | 0.0000 | 0.0000 |
| 52 | 4.6883 | 1.8225 | -0.2664 | 5.8964 | 1.4208 | 3.4650 | 2.2619 | 4.8140 | 4.8278 | 0.0000 |

T 0.05[17] = 2.110

T 0.01[17] = 2.898

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Spring 1983
Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|----------|-----------|-----------|---------|
| 1 | 0.0006 | 0.0060 | 0.0190 | 0.0090 | 0.0080 | 0.0150 | 320.0000 | 500.0000 | 150.0000 | 8.9500 |
| 2 | 0.0002 | 0.0020 | 0.0120 | 0.0020 | 0.0030 | 0.0060 | 20.0000 | 20.0000 | 25.7000 | 3.2700 |
| 3 | 0.0007 | 0.0080 | 0.0190 | 0.0110 | 0.0070 | 0.0220 | 440.0000 | 100.0000 | 83.5000 | 5.4100 |
| 4 | 0.0020 | 0.0240 | 0.0400 | 0.0360 | 0.0260 | 0.0760 | 900.0000 | 900.0000 | 1114.0000 | 14.6400 |
| 5 | 0.0010 | 0.0180 | 0.0330 | 0.0280 | 0.0200 | 0.0550 | 540.0000 | 1260.0000 | 642.0000 | 17.1200 |
| 6 | 0.0010 | 0.0120 | 0.0290 | 0.0200 | 0.0170 | 0.0380 | 320.0000 | 1140.0000 | 618.0000 | 15.1900 |
| 7 | 0.0007 | 0.0090 | 0.0210 | 0.0150 | 0.0080 | 0.0270 | 420.0000 | 180.0000 | 375.0000 | 12.6100 |
| 8 | 0.0004 | 0.0040 | 0.0150 | 0.0070 | 0.0030 | 0.0120 | 140.0000 | 40.0000 | 164.0000 | 8.2500 |
| 9 | 0.0006 | 0.0040 | 0.0140 | 0.0040 | 0.0070 | 0.0130 | 100.0000 | 20.0000 | 79.7000 | 7.1000 |
| 10 | 0.0004 | 0.0010 | 0.0100 | 0.0020 | 0.0030 | 0.0010 | 30.0000 | 10.0000 | 27.9000 | 4.4400 |
| 11 | 0.0003 | 0.0240 | 0.0110 | 0.0050 | 0.0040 | 0.0090 | 30.0000 | 10.0000 | 46.7000 | 3.3300 |
| 12 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0030 | 0.0040 | 290.0000 | 70.0000 | 37.8000 | 3.6100 |
| 13 | 0.0005 | 0.0020 | 0.0120 | 0.0040 | 0.0040 | 0.0090 | 320.0000 | 20.0000 | 36.1000 | 4.2800 |
| 14 | 0.0003 | 0.0020 | 0.0140 | 0.0030 | 0.0050 | 0.0060 | 340.0000 | 20.0000 | 35.6000 | 4.1600 |
| 15 | 0.0020 | 0.0060 | 0.0200 | 0.0120 | 0.0390 | 0.0110 | 100.0000 | 1500.0000 | 110.0000 | 7.5400 |
| 16 | 0.0003 | 0.0020 | 0.0130 | 0.0030 | 0.0030 | 0.0010 | 20.0000 | 10.0000 | 33.6000 | 5.7800 |
| 17 | 0.0008 | 0.0020 | 0.0100 | 0.0030 | 0.0030 | 0.0060 | 70.0000 | 10.0000 | 39.4000 | 6.7900 |
| 18 | 0.0003 | 0.0040 | 0.0300 | 0.0050 | 0.0080 | 0.0460 | 10.0000 | 20.0000 | 59.9000 | 6.8300 |
| 19 | 0.0006 | 0.0010 | 0.0140 | 0.0030 | 0.0030 | 0.0020 | 20.0000 | 10.0000 | 15.0000 | 3.9500 |
| 20 | 0.0004 | 0.0020 | 0.0220 | 0.0010 | 0.0030 | 0.0030 | 40.0000 | 20.0000 | 9.7000 | 3.0000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #10

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.4816 | 0.6097 | 0.7512 | 0.9179 | 0.5735 | 0.5434 | 0.8170 | 0.6775 | 0.6000 |
| 2 | 0.4816 | 1.0000 | 0.5891 | 0.7643 | 0.4709 | 0.6956 | 0.5890 | 0.4991 | 0.7310 | 0.5825 |
| 3 | 0.6097 | 0.5891 | 1.0000 | 0.8515 | 0.6335 | 0.9309 | 0.6438 | 0.6530 | 0.8320 | 0.7785 |
| 5 | 0.7512 | 0.7643 | 0.8515 | 1.0000 | 0.7052 | 0.8958 | 0.8360 | 0.7573 | 0.9643 | 0.8929 |
| 6 | 0.9179 | 0.4709 | 0.6335 | 0.7052 | 1.0000 | 0.5646 | 0.4434 | 0.9221 | 0.5958 | 0.5923 |
| 7 | 0.5735 | 0.6956 | 0.9309 | 0.8958 | 0.5646 | 1.0000 | 0.7374 | 0.5711 | 0.8839 | 0.8109 |
| 8 | 0.5434 | 0.5890 | 0.6438 | 0.8360 | 0.4434 | 0.7374 | 1.0000 | 0.4721 | 0.8204 | 0.6684 |
| 9 | 0.8170 | 0.4991 | 0.6530 | 0.7573 | 0.9221 | 0.5711 | 0.4721 | 1.0000 | 0.6589 | 0.7299 |
| 51 | 0.6775 | 0.7310 | 0.8320 | 0.9643 | 0.5958 | 0.8839 | 0.8204 | 0.6589 | 1.0000 | 0.8738 |
| 52 | 0.6000 | 0.5825 | 0.7785 | 0.8929 | 0.5923 | 0.8109 | 0.6684 | 0.7299 | 0.8738 | 1.0000 |

T STATISTIC FOR 18 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|---------|---------|---------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 2.3315 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 3.2632 | 3.0933 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 4.8278 | 5.0277 | 6.8890 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 9.8116 | 2.2646 | 3.4736 | 4.2197 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 2.9705 | 4.1074 | 10.8102 | 8.5504 | 2.9024 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 2.7461 | 3.0919 | 3.5692 | 6.4641 | 2.0987 | 4.6311 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 6.0114 | 2.4439 | 3.6582 | 4.9194 | 10.1095 | 2.9518 | 2.2720 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 3.9083 | 4.5454 | 6.3620 | 15.4452 | 3.1470 | 8.0179 | 6.0874 | 3.7160 | 0.0000 | 0.0000 |
| 52 | 3.1917 | 3.0406 | 5.2616 | 8.4127 | 3.1188 | 5.8801 | 3.8121 | 4.5299 | 7.6223 | 0.0000 |

T 0.05[18] = 2.101

T 0.01[18] = 2.878

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|--------|
| 1 | 0.0006 | 0.0070 | 0.0150 | 0.0080 | 0.0080 | 0.0240 | 600.0000 | 380.0000 | 16.9000 | 0.5800 |
| 2 | 0.0002 | 0.0060 | 0.0160 | 0.0060 | 0.0080 | 0.0140 | 80.0000 | 20.0000 | 7.2000 | 0.2000 |
| 3 | 0.0010 | 0.0170 | 0.0370 | 0.0260 | 0.1200 | 0.1500 | 1280.0000 | 740.0000 | 278.0000 | 2.0800 |
| 4 | 0.0010 | 0.0270 | 0.0490 | 0.0310 | 0.1600 | 0.2100 | 660.0000 | 1320.0000 | 393.0000 | 4.7100 |
| 5 | 0.0008 | 0.0110 | 0.0270 | 0.0170 | 0.0300 | 0.0880 | 1580.0000 | 1080.0000 | 268.0000 | 2.4400 |
| 6 | 0.0006 | 0.0080 | 0.0170 | 0.0080 | 0.0120 | 0.0320 | 860.0000 | 520.0000 | 80.8000 | 1.1100 |
| 7 | 0.0006 | 0.0060 | 0.0200 | 0.0080 | 0.0130 | 0.0340 | 420.0000 | 120.0000 | 42.5000 | 0.8000 |
| 8 | 0.0007 | 0.0050 | 0.0160 | 0.0060 | 0.0120 | 0.0270 | 760.0000 | 340.0000 | 22.9000 | 0.5300 |
| 9 | 0.0002 | 0.0040 | 0.0160 | 0.0030 | 0.0030 | 0.0290 | 2400.0000 | 140.0000 | 21.5000 | 0.8400 |
| 10 | 0.0005 | 0.0050 | 0.0200 | 0.0060 | 0.0530 | 0.0660 | 440.0000 | 180.0000 | 43.7000 | 0.5900 |
| 11 | 0.0006 | 0.0090 | 0.0210 | 0.0060 | 0.0160 | 0.0370 | 160.0000 | 140.0000 | 16.2000 | 0.4100 |
| 12 | 0.0002 | 0.0050 | 0.0210 | 0.0040 | 0.0110 | 0.0330 | 920.0000 | 260.0000 | 11.3000 | 0.2800 |
| 13 | 0.0006 | 0.0050 | 0.0160 | 0.0050 | 0.0100 | 0.0400 | 480.0000 | 100.0000 | 8.4000 | 0.3200 |
| 14 | 0.0030 | 0.0130 | 0.0700 | 0.0200 | 0.3400 | 0.2900 | 740.0000 | 840.0000 | 174.0000 | 1.0500 |
| 15 | 0.0009 | 0.0090 | 0.0270 | 0.0100 | 0.0900 | 0.1100 | 1460.0000 | 500.0000 | 73.9000 | 1.0800 |
| 16 | 0.0006 | 0.0130 | 0.0260 | 0.0090 | 0.0270 | 0.0550 | 1900.0000 | 580.0000 | 88.4000 | 1.4300 |
| 17 | 0.0006 | 0.0040 | 0.0210 | 0.0040 | 0.0080 | 0.0360 | 140.0000 | 120.0000 | 17.9000 | 0.4500 |
| 18 | 0.0020 | 0.0040 | 0.0340 | 0.0050 | 0.0140 | 0.0260 | 200.0000 | 240.0000 | 6.9700 | 0.4500 |
| 19 | 0.0004 | 0.0070 | 0.0250 | 0.0070 | 0.0120 | 0.0240 | 210.0000 | 50.0000 | 13.3000 | 0.4400 |
| 20 | 0.0007 | 0.0050 | 0.0250 | 0.0040 | 0.0120 | 0.0290 | 620.0000 | 120.0000 | 9.3000 | 0.3000 |
| 21 | 0.0006 | 0.0020 | 0.0240 | 0.0050 | 0.0080 | 0.0260 | 320.0000 | 80.0000 | 3.7200 | 0.1700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1983
 Station #11

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| 1 | 1.0000 | 0.2965 | 0.8533 | 0.4374 | 0.7890 | 0.7157 | -0.0831 | 0.4316 | 0.3344 | 0.1825 |
| 2 | 0.2965 | 1.0000 | 0.6330 | 0.9302 | 0.6095 | 0.7452 | 0.2284 | 0.8598 | 0.9100 | 0.9160 |
| 3 | 0.8533 | 0.6330 | 1.0000 | 0.7249 | 0.9290 | 0.9192 | 0.0276 | 0.6442 | 0.6351 | 0.5019 |
| 5 | 0.4374 | 0.9302 | 0.7249 | 1.0000 | 0.7135 | 0.8353 | 0.1907 | 0.8852 | 0.9628 | 0.8794 |
| 6 | 0.7890 | 0.6095 | 0.9290 | 0.7135 | 1.0000 | 0.9705 | 0.0892 | 0.6223 | 0.6036 | 0.4465 |
| 7 | 0.7157 | 0.7452 | 0.9192 | 0.8353 | 0.9705 | 1.0000 | 0.1769 | 0.7608 | 0.7633 | 0.6306 |
| 8 | -0.0831 | 0.2284 | 0.0276 | 0.1907 | 0.0892 | 0.1769 | 1.0000 | 0.3959 | 0.3116 | 0.3313 |
| 9 | 0.4316 | 0.8598 | 0.6442 | 0.8852 | 0.6223 | 0.7608 | 0.3959 | 1.0000 | 0.9344 | 0.8966 |
| 51 | 0.3344 | 0.9100 | 0.6351 | 0.9628 | 0.6036 | 0.7633 | 0.3116 | 0.9344 | 1.0000 | 0.9437 |
| 52 | 0.1825 | 0.9160 | 0.5019 | 0.8794 | 0.4465 | 0.6306 | 0.3313 | 0.8966 | 0.9437 | 1.0000 |

T STATISTIC FOR 19 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|--------|---------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.3531 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 7.1319 | 3.5642 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 2.1203 | 11.0480 | 4.5974 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 5.5976 | 3.3508 | 10.9435 | 4.4382 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 4.4671 | 4.8715 | 10.1762 | 6.6234 | 17.5455 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.3636 | 1.0227 | 0.1204 | 0.8468 | 0.3905 | 0.7833 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.0853 | 7.3396 | 3.6712 | 8.2932 | 3.4652 | 5.1106 | 1.8794 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.5467 | 9.5666 | 3.5840 | 15.5291 | 3.3001 | 5.1506 | 1.4292 | 11.4354 | 0.0000 | 0.0000 |
| 52 | 0.8092 | 9.9514 | 2.5295 | 8.0529 | 2.1754 | 3.5415 | 1.5306 | 8.8231 | 12.4307 | 0.0000 |

T 0.05[19] = 2.093

T 0.01[19] = 2.861

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Spring 1983

Station #12

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|--------|
| 1 | 0.0000 | 0.2200 | 0.0220 | 0.0330 | 0.0060 | 0.0750 | 660.0000 | 380.0000 | 6.0400 | 0.1000 |
| 2 | 0.0007 | 0.0500 | 0.0200 | 0.0080 | 0.0070 | 0.0670 | 640.0000 | 260.0000 | 6.1400 | 0.0700 |
| 3 | 0.0010 | 0.2300 | 0.0280 | 0.0160 | 0.0470 | 0.1200 | 520.0000 | 660.0000 | 77.1000 | 0.8800 |
| 4 | 0.0010 | 0.1600 | 0.0480 | 0.0270 | 0.1000 | 0.1900 | 300.0000 | 620.0000 | 196.0000 | 1.7200 |
| 5 | 0.0010 | 0.1200 | 0.0740 | 0.0290 | 0.1200 | 0.2500 | 280.0000 | 680.0000 | 71.6000 | 0.4300 |
| 6 | 0.0005 | 0.0770 | 0.0160 | 0.0070 | 0.0060 | 0.0790 | 200.0000 | 100.0000 | 31.4000 | 0.1100 |
| 7 | 0.0006 | 0.1600 | 0.0180 | 0.0070 | 0.0050 | 0.0650 | 120.0000 | 40.0000 | 15.0000 | 0.1000 |
| 8 | 0.0006 | 0.0010 | 0.0150 | 0.0070 | 0.0030 | 0.0800 | 200.0000 | 40.0000 | 10.7000 | 0.0700 |
| 9 | 0.0006 | 0.0620 | 0.0170 | 0.0070 | 0.0070 | 0.0630 | 440.0000 | 80.0000 | 13.9000 | 0.0900 |
| 10 | 0.0020 | 0.7300 | 0.0900 | 0.0350 | 0.1700 | 0.2900 | 1600.0000 | 1000.0000 | 169.0000 | 0.1900 |
| 11 | 0.0008 | 0.0530 | 0.0280 | 0.0100 | 0.0350 | 0.0910 | 600.0000 | 280.0000 | 35.2000 | 0.1600 |
| 12 | 0.0008 | 0.0240 | 0.0210 | 0.0080 | 0.0140 | 0.0750 | 920.0000 | 240.0000 | 19.6000 | 0.0800 |
| 13 | 0.0020 | 0.0550 | 0.0560 | 0.0160 | 0.2200 | 0.2600 | 1800.0000 | 300.0000 | 168.0000 | 0.5300 |
| 14 | 0.0010 | 0.1100 | 0.0370 | 0.0180 | 0.0770 | 0.1300 | 700.0000 | 1620.0000 | 68.1000 | 0.7900 |
| 15 | 0.0007 | 0.0500 | 0.0290 | 0.0060 | 0.0040 | 0.0740 | 220.0000 | 100.0000 | 22.7000 | 0.0800 |
| 16 | 0.0004 | 0.1200 | 0.0210 | 0.0070 | 0.0040 | 0.0730 | 3200.0000 | 20.0000 | 10.1000 | 0.0900 |
| 17 | 0.0006 | 0.0840 | 0.0300 | 0.0100 | 0.0100 | 0.0820 | 110.0000 | 10.0000 | 13.2000 | 0.0900 |
| 18 | 0.0005 | 0.1500 | 0.0250 | 0.0070 | 0.0040 | 0.0760 | 460.0000 | 220.0000 | 5.9000 | 0.0700 |
| 19 | 0.0002 | 0.0200 | 0.0360 | 0.0120 | 0.0030 | 0.1400 | 1220.0000 | 860.0000 | 9.2900 | 0.0800 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Spring 1993
 Station #12

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|---------|--------|--------|---------|
| 1 | 1.0000 | 0.5918 | 0.7560 | 0.6028 | 0.9244 | 0.8086 | 0.2381 | 0.3821 | 0.8230 | 0.3500 |
| 2 | 0.5918 | 1.0000 | 0.6428 | 0.6667 | 0.4564 | 0.5351 | 0.2231 | 0.3927 | 0.5035 | 0.1119 |
| 3 | 0.7560 | 0.6428 | 1.0000 | 0.7470 | 0.8506 | 0.9550 | 0.2163 | 0.5593 | 0.7564 | 0.3363 |
| 5 | 0.6028 | 0.6667 | 0.7470 | 1.0000 | 0.6168 | 0.7138 | 0.0749 | 0.5877 | 0.6267 | 0.4466 |
| 6 | 0.9244 | 0.4564 | 0.8506 | 0.6168 | 1.0000 | 0.9351 | 0.2825 | 0.4625 | 0.8885 | 0.4802 |
| 7 | 0.8086 | 0.5351 | 0.9550 | 0.7138 | 0.9351 | 1.0000 | 0.2572 | 0.5412 | 0.8453 | 0.4411 |
| 8 | 0.2381 | 0.2231 | 0.2163 | 0.0749 | 0.2825 | 0.2572 | 1.0000 | 0.0858 | 0.1745 | -0.0925 |
| 9 | 0.3821 | 0.3927 | 0.5593 | 0.5877 | 0.4625 | 0.5412 | 0.0858 | 1.0000 | 0.4547 | 0.4780 |
| 51 | 0.8230 | 0.5035 | 0.7564 | 0.6267 | 0.8885 | 0.8453 | 0.1745 | 0.4547 | 1.0000 | 0.7397 |
| 52 | 0.3500 | 0.1119 | 0.3363 | 0.4466 | 0.4802 | 0.4411 | -0.0925 | 0.4780 | 0.7397 | 1.0000 |

T STATISTIC FOR 17 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|---------|--------|---------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.0274 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 4.7616 | 3.4599 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 3.1149 | 3.6882 | 4.6332 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 9.9947 | 2.1147 | 6.6698 | 3.2307 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 5.6660 | 2.6117 | 13.2816 | 4.2018 | 10.8760 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 1.0109 | 0.9436 | 0.9136 | 0.3098 | 1.2142 | 1.0974 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.7048 | 1.7608 | 2.7822 | 2.9949 | 2.1507 | 2.6538 | 0.3551 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 5.9729 | 2.4028 | 4.7672 | 3.3163 | 7.9819 | 6.5234 | 0.7309 | 2.1047 | 0.0000 | 0.0000 |
| 52 | 1.5405 | 0.4644 | 1.4726 | 2.0594 | 2.2569 | 2.0264 | -0.3830 | 2.2440 | 4.5318 | 0.0000 |

T 0.05[17] = 2.110

T 0.01[17] = 2.898

Appendix J, Table 5
Correlations: Conventional
Water Quality Parameters
and Bacteria, Fall 1982
and Spring 1983

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #3

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 240.0000 | 260.0000 | 0.0060 | 7.9800 | 0.0255 | 0.1230 | 407.0000 | 134.0000 | 3.8200 |
| 2 | 40.0000 | 20.0000 | 0.0060 | 8.1900 | 0.0090 | 0.0270 | 422.0000 | 12.6000 | 2.3500 |
| 3 | 1360.0000 | 790.0000 | 0.0060 | 7.4500 | 0.0330 | 0.3620 | 367.0000 | 161.0000 | 8.2200 |
| 4 | 1900.0000 | 1300.0000 | 0.0080 | 7.4400 | 0.0360 | 0.9300 | 380.0000 | 581.0000 | 14.1000 |
| 5 | 840.0000 | 540.0000 | 0.0080 | 7.6900 | 0.0400 | 0.4500 | 396.0000 | 594.0000 | 14.1700 |
| 6 | 620.0000 | 440.0000 | 0.0060 | 7.8000 | 0.0295 | 0.4250 | 419.0000 | 403.0000 | 8.1200 |
| 7 | 340.0000 | 260.0000 | 0.0040 | 7.8300 | 0.0340 | 0.4520 | 393.0000 | 285.0000 | 4.7500 |
| 8 | 520.0000 | 120.0000 | 0.0060 | 7.9800 | 0.0220 | 0.2500 | 418.0000 | 106.0000 | 4.2400 |
| 9 | 560.0000 | 90.0000 | 0.0040 | 8.1800 | 0.0785 | 0.1680 | 454.0000 | 69.6000 | 3.6200 |
| 10 | 110.0000 | 70.0000 | 0.0040 | 8.2200 | 0.0005 | 0.0610 | 775.0000 | 23.7000 | 1.6200 |
| 11 | 160.0000 | 40.0000 | 0.0060 | 8.2200 | 0.0210 | 0.0500 | 589.0000 | 18.8000 | 2.6500 |
| 12 | 180.0000 | 110.0000 | 0.0040 | 8.1300 | 0.0280 | 0.0660 | 624.0000 | 16.7000 | 2.3000 |
| 13 | 220.0000 | 50.0000 | 0.0060 | 8.2700 | 1.5000 | 1.5200 | 608.0000 | 16.9000 | 5.6300 |
| 14 | 4900.0000 | 1700.0000 | 0.0040 | 7.8600 | 0.0490 | 0.1430 | 0.0819 | 34.9000 | 5.0600 |
| 15 | 8900.0000 | 2600.0000 | 0.0060 | 7.7900 | 0.0460 | 0.2100 | 854.0000 | 70.4000 | 6.4900 |
| 16 | 720.0000 | 620.0000 | 0.0040 | 7.6300 | 0.0275 | 0.2920 | 657.0000 | 53.1000 | 4.3400 |
| 17 | 660.0000 | 440.0000 | 0.0040 | 7.9800 | 0.0245 | 0.1450 | 531.0000 | 55.2000 | 5.1700 |
| 18 | 340.0000 | 400.0000 | 0.0040 | 8.2000 | 0.0280 | 0.2900 | 465.0000 | 146.0000 | 7.2300 |
| 19 | 240.0000 | 160.0000 | 0.0020 | 8.1400 | 0.0275 | 0.2830 | 439.0000 | 96.1000 | 5.5900 |
| 20 | 60.0000 | 90.0000 | 0.0020 | 8.1600 | 0.0230 | 0.2300 | 452.0000 | 87.4000 | 4.7900 |
| 21 | 100.0000 | 180.0000 | 0.0020 | 8.4000 | 0.0240 | 0.1430 | 455.0000 | 69.7000 | 4.6800 |
| 22 | 80.0000 | 70.0000 | 0.0040 | 8.3600 | 0.0190 | 0.0780 | 228.0000 | 29.4000 | 3.9600 |
| 23 | 70.0000 | 20.0000 | 0.0060 | 8.3200 | 0.0170 | 0.0570 | 406.0000 | 34.1000 | 5.5500 |
| 24 | 320.0000 | 40.0000 | 0.0060 | 8.2400 | 0.0160 | 0.1500 | 444.0000 | 37.4000 | 4.2400 |
| 25 | 60.0000 | 60.0000 | 0.0060 | 8.2100 | 0.0100 | 0.0300 | 476.0000 | 6.0100 | 3.0000 |

| | | | | | | | | | |
|----|------------|------------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 20.0000 | 80.0000 | 0.0040 | 7.9400 | 0.0100 | 0.0200 | 374.0000 | 8.5900 | 2.2500 |
| 27 | 340.0000 | 60.0000 | 0.0320 | 8.2800 | 0.0020 | 0.0190 | 376.0000 | 15.5000 | 4.1000 |
| 28 | 440.0000 | 80.0000 | 0.0500 | 8.4400 | 0.0025 | 0.0160 | 379.0000 | 5.3600 | 4.7500 |
| 29 | 1120.0000 | 4600.0000 | 0.0300 | 8.3800 | 0.0020 | 0.0190 | 387.0000 | 6.0700 | 5.0600 |
| 30 | 4000.0000 | 3800.0000 | 0.0460 | 8.5100 | 0.0020 | 0.0260 | 399.0000 | 2.7700 | 4.1000 |
| 31 | 500.0000 | 3100.0000 | 0.0080 | 8.1100 | 0.0390 | 0.4250 | 381.0000 | 286.0000 | 15.3400 |
| 32 | 1000.0000 | 3000.0000 | 0.0120 | 7.8300 | 0.0610 | 0.2970 | 376.0000 | 319.0000 | 19.5300 |
| 33 | 18000.0000 | 53000.0000 | 0.0040 | 7.7100 | 0.0470 | 0.3120 | 353.0000 | 220.0000 | 23.3500 |
| 34 | 900.0000 | 2300.0000 | 0.0120 | 8.3100 | 0.0350 | 0.2670 | 319.0000 | 195.0000 | 27.0900 |
| 35 | 1000.0000 | 2000.0000 | 0.0060 | 8.1300 | 0.0490 | 0.3920 | 318.0000 | 272.0000 | 34.8000 |
| 36 | 1000.0000 | 1000.0000 | 0.0440 | 8.3000 | 0.0510 | 0.4200 | 369.0000 | 288.0000 | 37.3900 |
| 37 | 2000.0000 | 1000.0000 | 0.0020 | 8.3100 | 0.0580 | 0.3420 | 389.0000 | 212.0000 | 30.5400 |
| 38 | 3500.0000 | 3100.0000 | 0.0020 | 8.3300 | 0.0250 | 0.1320 | 305.0000 | 60.3000 | 9.1100 |
| 40 | 1240.0000 | 1220.0000 | 0.0060 | 8.4000 | 0.0010 | 0.1480 | 402.0000 | 51.6000 | 11.1000 |
| 41 | 1240.0000 | 1060.0000 | 0.0040 | 8.5000 | 0.0025 | 0.1650 | 447.0000 | 28.9000 | 13.1600 |
| 42 | 940.0000 | 1140.0000 | 0.0060 | 8.3900 | 0.0020 | 0.2070 | 462.0000 | 56.9000 | 13.8300 |
| 43 | 880.0000 | 1340.0000 | 0.0060 | 8.3000 | 0.0050 | 0.2170 | 469.0000 | 127.0000 | 13.9600 |
| 44 | 520.0000 | 100.0000 | 0.0480 | 8.4400 | 0.0060 | 0.0140 | 442.0000 | 2.4300 | 2.5700 |
| 45 | 800.0000 | 1100.0000 | 0.0040 | 8.3900 | 0.0035 | 0.1720 | 272.0000 | 65.3000 | 12.5200 |
| 46 | 1100.0000 | 1180.0000 | 0.0160 | 8.4500 | 0.0160 | 0.1070 | 491.0000 | 59.9000 | 11.7000 |
| 47 | 140.0000 | 80.0000 | 0.0400 | 8.4700 | 0.0025 | 0.0250 | 417.0000 | 8.0000 | 3.7900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #3

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 50 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.8804 | -0.0464 | -0.3004 | -0.0350 | 0.0398 | -0.0336 | 0.0980 | 0.2073 |
| 9 | 0.8804 | 1.0000 | -0.0538 | -0.2197 | -0.0216 | 0.0462 | -0.1150 | 0.1295 | 0.2701 |
| 46 | -0.0464 | -0.0538 | 1.0000 | 0.3646 | -0.0799 | -0.2164 | -0.0930 | -0.1468 | -0.0153 |
| 47 | -0.3004 | -0.2197 | 0.3646 | 1.0000 | 0.0237 | -0.3627 | -0.0527 | -0.5766 | 0.0395 |
| 48 | -0.0350 | -0.0216 | -0.0799 | 0.0237 | 1.0000 | 0.7728 | 0.1894 | -0.0606 | -0.0238 |
| 49 | 0.0398 | 0.0462 | -0.2164 | -0.3627 | 0.7728 | 1.0000 | 0.0733 | 0.5114 | 0.2716 |
| 50 | -0.0336 | -0.1150 | -0.0930 | -0.0527 | 0.1894 | 0.0733 | 1.0000 | -0.1915 | -0.2840 |
| 51 | 0.0980 | 0.1295 | -0.1468 | -0.5766 | -0.0606 | 0.5114 | -0.1915 | 1.0000 | 0.4987 |
| 52 | 0.2073 | 0.2701 | -0.0153 | 0.0395 | -0.0238 | 0.2716 | -0.2840 | 0.4987 | 1.0000 |

T STATISTIC FOR 45 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|--------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 12.4533 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | -0.3115 | -0.3615 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -2.1128 | -1.5106 | 2.6265 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.2348 | -0.1449 | -0.5377 | 0.1593 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 0.2670 | 0.3103 | -1.4866 | -2.6110 | 8.1691 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.2254 | -0.7767 | -0.6268 | -0.3541 | 1.2942 | 0.4932 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.6606 | 0.8761 | -0.9958 | -4.7338 | -0.4070 | 3.9924 | -1.3092 | 0.0000 | 0.0000 |
| 52 | 1.4216 | 1.8819 | -0.1025 | 0.2649 | -0.1596 | 1.8934 | -1.9871 | 3.8591 | 0.0000 |

T 0.05[45] = 2.014

T 0.01[45] = 2.689

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station 44

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|-----------|----------|---------|
| 1 | 100.0000 | 2700.0000 | 0.0060 | 8.0800 | 0.0580 | 0.1030 | 595.0000 | 19.4000 | 1.5100 |
| 2 | 20.0000 | 20.0000 | 0.0760 | 7.7600 | 0.0140 | 0.0340 | 756.0000 | 11.1000 | 0.3000 |
| 3 | 600.0000 | 860.0000 | 0.0560 | 7.4800 | 0.0390 | 0.6800 | 369.0000 | 193.0000 | 12.5100 |
| 4 | 1000.0000 | 200.0000 | 0.0080 | 7.5300 | 0.0520 | 1.4100 | 373.0000 | 758.0000 | 9.5700 |
| 5 | 320.0000 | 660.0000 | 0.0060 | 7.6200 | 0.0380 | 0.3350 | 443.0000 | 257.0000 | 5.1500 |
| 6 | 160.0000 | 140.0000 | 0.0060 | 8.0200 | 0.0255 | 0.1100 | 552.0000 | 65.8000 | 2.2100 |
| 7 | 240.0000 | 40.0000 | 0.0060 | 8.2000 | 0.0150 | 0.0680 | 592.0000 | 30.6000 | 1.6700 |
| 8 | 40.0000 | 100.0000 | 0.0040 | 7.9800 | 0.0180 | 0.0650 | 777.0000 | 11.1000 | 1.1900 |
| 9 | 660.0000 | 460.0000 | 0.0060 | 7.8700 | 0.0120 | 0.0300 | 1026.0000 | 6.7100 | 0.8700 |
| 10 | 130.0000 | 2500.0000 | 0.1660 | 7.6700 | 0.0400 | 0.1220 | 2336.0000 | 17.3000 | 1.2000 |
| 11 | 30.0000 | 70.0000 | 0.0700 | 8.3200 | 0.0110 | 0.0180 | 1259.0000 | 6.5200 | 0.9900 |
| 12 | 80.0000 | 1230.0000 | 0.0400 | 7.6700 | 0.0060 | 0.0100 | 0.0000 | 5.9500 | 0.9000 |
| 13 | 160.0000 | 720.0000 | 0.1080 | 8.0600 | 0.0055 | 0.0290 | 1406.0000 | 3.7000 | 1.1100 |
| 14 | 140.0000 | 660.0000 | 0.3400 | 7.4300 | 0.0360 | 0.2750 | 1067.0000 | 92.8000 | 3.2800 |
| 15 | 880.0000 | 1180.0000 | 0.7300 | 7.4500 | 0.0270 | 0.2450 | 1694.0000 | 120.0000 | 3.6800 |
| 16 | 120.0000 | 660.0000 | 0.4400 | 7.2100 | 0.0100 | 0.2300 | 1023.0000 | 78.6000 | 3.1400 |
| 17 | 620.0000 | 760.0000 | 0.0040 | 7.2800 | 0.0250 | 0.1900 | 836.0000 | 90.1000 | 4.2800 |
| 18 | 120.0000 | 900.0000 | 0.0040 | 7.6400 | 0.0305 | 0.2700 | 508.0000 | 145.0000 | 2.2900 |
| 19 | 140.0000 | 540.0000 | 0.0040 | 7.9400 | 0.0210 | 0.2400 | 556.0000 | 52.4000 | 1.7500 |
| 20 | 40.0000 | 80.0000 | 0.0040 | 8.0400 | 0.0160 | 0.1450 | 614.0000 | 31.3000 | 1.1800 |
| 21 | 290.0000 | 710.0000 | 0.0040 | 8.4400 | 0.0155 | 0.0760 | 654.0000 | 21.8000 | 1.0100 |
| 22 | 10.0000 | 160.0000 | 0.0620 | 8.0100 | 0.0045 | 0.0170 | 762.0000 | 7.0200 | 0.9100 |
| 23 | 110.0000 | 160.0000 | 0.0460 | 7.9600 | 0.0080 | 0.0220 | 742.0000 | 6.8900 | 0.6400 |
| 24 | 60.0000 | 1500.0000 | 0.0780 | 7.8700 | 0.0035 | 0.0240 | 912.0000 | 4.6300 | 0.4700 |
| 25 | 620.0000 | 620.0000 | 0.0420 | 8.2900 | 0.0140 | 0.0270 | 757.0000 | 4.9500 | 0.4000 |

| | | | | | | | | | |
|----|------------|------------|--------|--------|--------|--------|----------|----------|--------|
| 26 | 19000.0000 | 21000.0000 | 0.4300 | 7.6100 | 0.1750 | 1.4500 | 543.0000 | 104.0000 | 0.5000 |
| 27 | 4900.0000 | 16000.0000 | 0.0560 | 7.3400 | 0.3500 | 1.4500 | 370.0000 | 90.2000 | 1.3600 |
| 28 | 8500.0000 | 59000.0000 | 0.3900 | 7.4300 | 0.1150 | 0.5900 | 237.0000 | 61.2000 | 1.3500 |
| 29 | 6300.0000 | 10900.0000 | 0.0400 | 7.8300 | 0.0800 | 0.1880 | 627.0000 | 46.3000 | 1.8600 |
| 30 | 7500.0000 | 14000.0000 | 0.2760 | 8.0600 | 0.1050 | 0.2360 | 618.0000 | 60.4000 | 1.5300 |
| 31 | 6700.0000 | 13100.0000 | 0.0400 | 7.7700 | 0.0820 | 0.2500 | 561.0000 | 37.6000 | 1.2900 |
| 32 | 6900.0000 | 13000.0000 | 0.2820 | 7.5200 | 0.0540 | 0.1850 | 558.0000 | 4.9200 | 1.0900 |
| 33 | 300.0000 | 1100.0000 | 0.0100 | 8.1500 | 0.0820 | 0.2500 | 309.0000 | 96.6000 | 2.9100 |
| 34 | 400.0000 | 1500.0000 | 0.0020 | 8.0000 | 0.0750 | 0.2050 | 337.0000 | 67.2000 | 2.6300 |
| 35 | 100.0000 | 400.0000 | 0.0040 | 8.2200 | 0.0670 | 0.1800 | 350.0000 | 55.2000 | 2.4500 |
| 36 | 100.0000 | 1900.0000 | 0.0020 | 8.0400 | 0.0650 | 0.1820 | 337.0000 | 47.8000 | 3.3900 |
| 37 | 500.0000 | 900.0000 | 0.0120 | 8.2500 | 0.0760 | 0.1750 | 298.0000 | 62.8000 | 4.4100 |
| 38 | 1800.0000 | 2300.0000 | 0.0020 | 8.1500 | 0.0830 | 0.4750 | 237.0000 | 261.0000 | 5.4600 |
| 39 | 1200.0000 | 1900.0000 | 0.0020 | 8.0900 | 0.0930 | 0.4320 | 247.0000 | 255.0000 | 9.7100 |
| 40 | 700.0000 | 1000.0000 | 0.0060 | 7.9800 | 0.0820 | 0.2370 | 290.0000 | 120.0000 | 6.0900 |
| 41 | 3400.0000 | 7900.0000 | 0.0060 | 8.0100 | 0.0665 | 0.3200 | 327.0000 | 165.0000 | 3.8600 |
| 42 | 8100.0000 | 7600.0000 | 0.0060 | 8.0300 | 0.0545 | 0.3850 | 286.0000 | 131.0000 | 5.1500 |
| 43 | 3900.0000 | 6100.0000 | 0.0160 | 7.6600 | 0.0465 | 0.2400 | 374.0000 | 95.5000 | 5.7700 |
| 44 | 2700.0000 | 5900.0000 | 0.0060 | 7.9300 | 0.0460 | 0.2650 | 274.0000 | 86.7000 | 4.1900 |
| 45 | 2600.0000 | 6300.0000 | 0.0080 | 7.9200 | 0.0505 | 0.2270 | 249.0000 | 90.1000 | 3.3900 |
| 46 | 740.0000 | 580.0000 | 0.0400 | 8.2500 | 0.0040 | 0.0280 | 748.0000 | 35.3000 | 0.3800 |
| 47 | 220.0000 | 140.0000 | 0.0900 | 8.2900 | 0.0050 | 0.0160 | 700.0000 | 18.2000 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #4

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6908 | 0.3776 | -0.2464 | 0.5545 | 0.5574 | -0.2093 | 0.0315 | -0.0664 |
| 9 | 0.6908 | 1.0000 | 0.3870 | -0.3206 | 0.5027 | 0.3889 | -0.2144 | -0.0417 | -0.1333 |
| 46 | 0.3776 | 0.3870 | 1.0000 | -0.5029 | 0.1014 | 0.1905 | 0.4369 | -0.0706 | -0.1384 |
| 47 | -0.2464 | -0.3206 | -0.5029 | 1.0000 | -0.2599 | -0.4575 | -0.1300 | -0.2547 | -0.2237 |
| 48 | 0.5545 | 0.5027 | 0.1014 | -0.2599 | 1.0000 | 0.7403 | -0.3148 | 0.1647 | 0.0917 |
| 49 | 0.5574 | 0.3889 | 0.1905 | -0.4575 | 0.7403 | 1.0000 | -0.2763 | 0.6357 | 0.3905 |
| 50 | -0.2093 | -0.2144 | 0.4369 | -0.1300 | -0.3148 | -0.2763 | 1.0000 | -0.2725 | -0.3312 |
| 51 | 0.0315 | -0.0417 | -0.0706 | -0.2547 | 0.1647 | 0.6357 | -0.2725 | 1.0000 | 0.7726 |
| 52 | -0.0664 | -0.1333 | -0.1384 | -0.2237 | 0.0917 | 0.3905 | -0.3312 | 0.7726 | 1.0000 |

T STATISTIC FOR 45 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 5.4090 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 2.7351 | 2.8158 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.7056 | -2.2707 | -3.9026 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 4.4703 | 3.9006 | 0.6839 | -1.8058 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 4.5038 | 2.8319 | 1.3021 | -3.4510 | 7.3869 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -1.4356 | -1.4728 | 3.2584 | -0.8796 | -2.2248 | -1.9283 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 0.2116 | -0.2798 | -0.4745 | -1.7671 | 1.1202 | 5.5242 | -1.9000 | 0.0000 | 0.0000 |
| 52 | -0.5818 | -0.9023 | -0.9372 | -1.5396 | 0.6179 | 2.8458 | -2.3546 | 7.0125 | 0.0000 |

T 0.05[45] = 2.014

T 0.01[45] = 2.689

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #5

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|------------|------------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 560.0000 | 540.0000 | 0.0060 | 7.9400 | 0.0270 | 0.0480 | 696.0000 | 14.7000 | 0.7800 |
| 2 | 80.0000 | 40.0000 | 0.0100 | 7.8100 | 0.0240 | 0.0580 | 996.0000 | 6.5600 | 0.2700 |
| 3 | 1200.0000 | 1900.0000 | 0.0080 | 7.6700 | 0.0430 | 0.3500 | 452.0000 | 151.0000 | 3.8200 |
| 4 | 11900.0000 | 4100.0000 | 0.0060 | 7.5000 | 0.0340 | 0.9500 | 292.0000 | 337.0000 | 9.6500 |
| 5 | 1440.0000 | 1580.0000 | 0.0060 | 7.6100 | 0.0380 | 0.3500 | 484.0000 | 229.0000 | 3.5500 |
| 6 | 1020.0000 | 280.0000 | 0.0060 | 8.0100 | 0.0280 | 0.1200 | 672.0000 | 76.3000 | 1.5500 |
| 7 | 1260.0000 | 220.0000 | 0.0080 | 8.1900 | 0.0320 | 0.1070 | 710.0000 | 36.6000 | 1.0500 |
| 8 | 1660.0000 | 220.0000 | 0.0080 | 8.0000 | 0.0220 | 0.0910 | 1254.0000 | 16.2000 | 0.7300 |
| 9 | 2800.0000 | 180.0000 | 0.0100 | 7.7400 | 0.0520 | 0.1000 | 1617.0000 | 14.7000 | 0.5700 |
| 10 | 1580.0000 | 220.0000 | 0.0060 | 7.8600 | 0.0350 | 0.1250 | 2658.0000 | 33.2000 | 0.8400 |
| 11 | 260.0000 | 80.0000 | 0.0140 | 7.1200 | 0.0250 | 0.0250 | 1448.0000 | 20.9000 | 0.5200 |
| 12 | 960.0000 | 100.0000 | 0.0080 | 7.9400 | 0.0460 | 0.1200 | 1456.0000 | 12.8000 | 0.5100 |
| 13 | 2100.0000 | 780.0000 | 0.0060 | 8.1300 | 0.0375 | 0.1030 | 1465.0000 | 8.7200 | 0.3600 |
| 14 | 880.0000 | 380.0000 | 0.0060 | 7.9200 | 0.0160 | 0.0410 | 1367.0000 | 5.3900 | 0.4100 |
| 15 | 69000.0000 | 12100.0000 | 0.0100 | 7.4800 | 0.2050 | 2.7200 | 1493.0000 | 68.4000 | 1.7500 |
| 16 | 4800.0000 | 2900.0000 | 0.0020 | 7.6900 | 0.0280 | 0.2300 | 1185.0000 | 142.0000 | 3.0000 |
| 17 | 3700.0000 | 1100.0000 | 0.0060 | 7.5500 | 0.0270 | 0.2270 | 1003.0000 | 71.6000 | 2.2200 |
| 18 | 520.0000 | 270.0000 | 0.0060 | 7.5300 | 0.0180 | 0.1700 | 942.0000 | 31.7000 | 1.1900 |
| 19 | 2600.0000 | 600.0000 | 0.0060 | 7.3800 | 0.0290 | 0.4230 | 722.0000 | 74.4000 | 2.4600 |
| 20 | 2500.0000 | 1800.0000 | 0.0040 | 7.4900 | 0.0280 | 0.3180 | 735.0000 | 68.4000 | 2.4400 |
| 21 | 300.0000 | 240.0000 | 0.0060 | 8.0000 | 0.0280 | 0.0830 | 930.0000 | 9.7000 | 0.6300 |
| 22 | 680.0000 | 160.0000 | 0.0100 | 7.7500 | 0.0330 | 0.0500 | 960.0000 | 6.3500 | 0.6000 |
| 23 | 400.0000 | 50.0000 | 0.0060 | 8.0200 | 0.0180 | 0.1050 | 526.0000 | 10.5000 | 0.7300 |
| 24 | 3900.0000 | 1300.0000 | 0.0060 | 7.6100 | 0.0380 | 0.0770 | 1268.0000 | 3.9400 | 0.5200 |
| 25 | 320.0000 | 140.0000 | 0.0080 | 7.5900 | 0.0200 | 0.0420 | 1019.0000 | 4.8400 | 0.3500 |

| | | | | | | | | | |
|----|-------------|--------------|--------|--------|--------|--------|-----------|----------|--------|
| 26 | 2600.0000 | 700.0000 | 0.0080 | 8.3800 | 0.0230 | 0.1300 | 952.0000 | 7.8000 | 0.2300 |
| 27 | 1100.0000 | 800.0000 | 0.0420 | 8.3600 | 0.0260 | 0.1350 | 849.0000 | 104.0000 | 0.3500 |
| 28 | 60000.0000 | 13600.0000 | 0.0380 | 7.5200 | 0.1050 | 0.2950 | 642.0000 | 28.4000 | 0.5200 |
| 29 | 240000.0000 | 230000.0000 | 1.9300 | 7.3300 | 0.3250 | 2.4000 | 593.0000 | 129.0000 | 1.4600 |
| 30 | 240000.0000 | 80000.0000 | 5.6000 | 6.9900 | 1.3500 | 2.6000 | 486.0000 | 269.0000 | 1.7400 |
| 31 | 139000.0000 | 1110000.0000 | 0.0200 | 7.0500 | 0.1300 | 0.9300 | 556.0000 | 144.0000 | 3.3600 |
| 32 | 80000.0000 | 32000.0000 | 0.0260 | 7.3700 | 0.0510 | 0.8750 | 558.0000 | 302.0000 | 4.6800 |
| 33 | 6100.0000 | 32000.0000 | 0.0060 | 7.5100 | 0.0290 | 0.9050 | 426.0000 | 285.0000 | 3.2500 |
| 34 | 1800.0000 | 4100.0000 | 0.0020 | 7.7600 | 0.0610 | 0.2500 | 265.0000 | 93.5000 | 1.4100 |
| 35 | 1000.0000 | 7000.0000 | 0.0020 | 7.7300 | 0.0470 | 0.1830 | 430.0000 | 55.6000 | 5.8900 |
| 36 | 1000.0000 | 1000.0000 | 0.0020 | 8.0600 | 0.0440 | 0.2150 | 228.0000 | 82.3000 | 6.1700 |
| 37 | 1000.0000 | 2000.0000 | 0.0040 | 8.1100 | 0.0380 | 0.1350 | 232.0000 | 57.8000 | 6.3200 |
| 38 | 2200.0000 | 1800.0000 | 0.0020 | 8.0500 | 0.0500 | 0.1800 | 216.0000 | 84.0000 | 6.9700 |
| 39 | 2000.0000 | 3000.0000 | 0.0020 | 8.3300 | 0.0600 | 0.2120 | 260.0000 | 96.9000 | 5.7500 |
| 40 | 1000.0000 | 1000.0000 | 0.0100 | 8.1200 | 0.0520 | 0.1750 | 280.0000 | 77.9000 | 6.4600 |
| 41 | 2100.0000 | 3100.0000 | 0.0060 | 8.1000 | 0.0550 | 0.1600 | 318.0000 | 67.5000 | 4.9400 |
| 42 | 6500.0000 | 5900.0000 | 0.0040 | 8.0200 | 0.0390 | 0.2000 | 291.0000 | 76.8000 | 2.5100 |
| 43 | 190000.0000 | 67000.0000 | 0.0080 | 7.8000 | 0.1550 | 0.4170 | 303.0000 | 96.4000 | 3.1400 |
| 44 | 75000.0000 | 36000.0000 | 0.0060 | 7.8200 | 0.1050 | 0.3570 | 271.0000 | 70.3000 | 3.7600 |
| 45 | 7300.0000 | 6900.0000 | 0.0060 | 8.0000 | 0.0365 | 0.1870 | 228.0000 | 75.4000 | 3.4600 |
| 46 | 5200.0000 | 6700.0000 | 0.0140 | 8.0000 | 0.0350 | 0.1620 | 243.0000 | 47.9000 | 2.4200 |
| 47 | 1360.0000 | 220.0000 | 0.0040 | 8.3200 | 0.3200 | 0.4500 | 1075.0000 | 9.6200 | 0.3000 |
| 48 | 4300.0000 | 240.0000 | 0.0080 | 8.3600 | 0.0550 | 0.0900 | 981.0000 | 9.5500 | 0.2500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Fall 1982 and Spring 1983

Station #1

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.2372 | 0.3928 | -0.2691 | 0.2791 | 0.5601 | -0.0783 | 0.1473 | -0.0535 |
| 9 | 0.2372 | 1.0000 | 0.0988 | -0.3949 | 0.1366 | 0.2740 | -0.1004 | 0.1831 | 0.0599 |
| 46 | 0.3928 | 0.0988 | 1.0000 | -0.4002 | 0.9554 | 0.6625 | -0.0969 | 0.3555 | -0.0643 |
| 47 | -0.2691 | -0.3949 | -0.4002 | 1.0000 | -0.3677 | -0.5452 | -0.0513 | -0.4555 | -0.0281 |
| 48 | 0.2791 | 0.1366 | 0.9554 | -0.3677 | 1.0000 | 0.6919 | -0.0893 | 0.3354 | -0.0578 |
| 49 | 0.5601 | 0.2740 | 0.6625 | -0.5452 | 0.6919 | 1.0000 | -0.0712 | 0.5184 | 0.0960 |
| 50 | -0.0783 | -0.1004 | -0.0969 | -0.0513 | -0.0893 | -0.0712 | 1.0000 | -0.4204 | -0.6222 |
| 51 | 0.1473 | 0.1831 | 0.3555 | -0.4555 | 0.3354 | 0.5184 | -0.4204 | 1.0000 | 0.5684 |
| 52 | -0.0535 | 0.0599 | -0.0643 | -0.0281 | -0.0578 | 0.0960 | -0.6222 | 0.5684 | 1.0000 |

T STATISTIC FOR 46 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.6559 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 2.8980 | 0.6735 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.8952 | -2.9153 | -2.9622 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.9711 | 0.9350 | 21.9445 | -2.6816 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 4.5856 | 1.9326 | 5.9981 | -4.4115 | 6.5000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.5324 | -0.6846 | -0.6601 | -0.3481 | -0.6079 | -0.4842 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.0104 | 1.2633 | 2.5794 | -3.4698 | 2.4148 | 4.1111 | -3.1429 | 0.0000 | 0.0000 |
| 52 | -0.3634 | 0.4068 | -0.4367 | -0.1910 | -0.3925 | 0.6540 | -5.3911 | 4.6852 | 0.0000 |

T 0.050463 = 2.313

T 0.010463 = 2.687

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #6

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 240.0000 | 340.0000 | 0.0060 | 7.9400 | 0.0280 | 0.1810 | 377.0000 | 160.0000 | 20.7600 |
| 2 | 20.0000 | 20.0000 | 0.0020 | 8.3800 | 0.0100 | 0.0380 | 389.0000 | 17.8000 | 5.0900 |
| 3 | 460.0000 | 780.0000 | 0.0040 | 7.5500 | 0.0270 | 0.2320 | 376.0000 | 140.0000 | 20.5700 |
| 4 | 1060.0000 | 820.0000 | 0.0060 | 7.5100 | 0.0260 | 0.5600 | 397.0000 | 765.0000 | 44.0200 |
| 5 | 620.0000 | 780.0000 | 0.0080 | 7.7600 | 0.0390 | 0.5800 | 407.0000 | 610.0000 | 64.3600 |
| 6 | 300.0000 | 1160.0000 | 0.0080 | 7.8200 | 0.0355 | 0.4450 | 402.0000 | 402.0000 | 32.7700 |
| 7 | 340.0000 | 300.0000 | 0.0040 | 7.9900 | 0.0340 | 0.3900 | 381.0000 | 322.0000 | 25.5600 |
| 8 | 300.0000 | 240.0000 | 0.0080 | 7.9900 | 0.0290 | 0.1950 | 409.0000 | 120.0000 | 15.2100 |
| 9 | 340.0000 | 60.0000 | 0.0040 | 8.0700 | 0.0330 | 0.1380 | 434.0000 | 76.4000 | 12.0400 |
| 10 | 20.0000 | 20.0000 | 0.0040 | 8.3600 | 0.0180 | 0.0640 | 647.0000 | 23.2000 | 7.2600 |
| 11 | 70.0000 | 20.0000 | 0.0040 | 8.2500 | 0.0905 | 0.1350 | 514.0000 | 20.6000 | 5.4500 |
| 12 | 110.0000 | 530.0000 | 0.0120 | 8.1200 | 0.0170 | 0.0790 | 543.0000 | 22.0000 | 5.7100 |
| 13 | 80.0000 | 60.0000 | 0.0040 | 8.1800 | 0.7400 | 0.7400 | 520.0000 | 21.2000 | 5.9000 |
| 14 | 1760.0000 | 780.0000 | 0.0060 | 7.8300 | 0.0285 | 0.1730 | 631.0000 | 45.5000 | 8.0200 |
| 15 | 1120.0000 | 340.0000 | 0.0060 | 7.9500 | 0.0230 | 0.1020 | 643.0000 | 53.0000 | 10.5800 |
| 16 | 540.0000 | 260.0000 | 0.0040 | 8.0000 | 0.0555 | 0.1080 | 554.0000 | 43.4000 | 8.7400 |
| 17 | 200.0000 | 320.0000 | 0.0040 | 7.8900 | 0.0310 | 0.1700 | 477.0000 | 79.6000 | 12.8100 |
| 18 | 220.0000 | 540.0000 | 0.0020 | 8.1100 | 0.0270 | 0.2300 | 426.0000 | 108.0000 | 16.4800 |
| 19 | 80.0000 | 360.0000 | 0.0040 | 8.1100 | 0.0270 | 0.2530 | 441.0000 | 92.8000 | 15.6300 |
| 20 | 30.0000 | 80.0000 | 0.0040 | 7.9400 | 0.0200 | 0.1200 | 400.0000 | 36.2000 | 11.3000 |
| 21 | 20.0000 | 20.0000 | 0.0040 | 8.2100 | 0.0200 | 0.0630 | 385.0000 | 30.7000 | 12.2700 |
| 22 | 50.0000 | 20.0000 | 0.0060 | 8.2000 | 0.0180 | 0.0810 | 404.0000 | 48.4000 | 11.6700 |
| 23 | 110.0000 | 30.0000 | 0.0050 | 8.4000 | 0.0100 | 0.0350 | 433.0000 | 7.8700 | 5.9000 |
| 24 | 60.0000 | 180.0000 | 0.0040 | 8.0200 | 0.0110 | 0.0280 | 349.0000 | 10.4000 | 4.0000 |
| 25 | 160.0000 | 100.0000 | 0.0200 | 8.4500 | 0.0040 | 0.0270 | 390.0000 | 11.9000 | 2.9100 |

| | | | | | | | | | |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 260.0000 | 1060.0000 | 0.0160 | 8.2700 | 0.0040 | 0.0310 | 357.0000 | 10.1000 | 3.3900 |
| 27 | 580.0000 | 860.0000 | 0.0100 | 8.4700 | 0.0140 | 0.0650 | 374.0000 | 11.9000 | 3.5900 |
| 28 | 9200.0000 | 4200.0000 | 0.0140 | 8.4000 | 0.0095 | 0.0340 | 369.0000 | 9.8700 | 4.5700 |
| 29 | 8400.0000 | 4600.0000 | 0.0120 | 7.9400 | 0.0120 | 0.0600 | 396.0000 | 14.1000 | 4.1900 |
| 30 | 4300.0000 | 2200.0000 | 0.0220 | 8.0900 | 0.0080 | 0.0430 | 389.0000 | 17.0000 | 4.7400 |
| 31 | 1900.0000 | 1740.0000 | 0.0160 | 8.3000 | 0.0110 | 0.0450 | 371.0000 | 19.1000 | 4.9500 |
| 32 | 2240.0000 | 1460.0000 | 0.0120 | 8.3100 | 0.0065 | 0.0300 | 374.0000 | 20.2000 | 4.6700 |
| 33 | 700.0000 | 1200.0000 | 0.0020 | 8.3500 | 0.0790 | 0.3720 | 352.0000 | 227.0000 | 19.4400 |
| 34 | 700.0000 | 1200.0000 | 0.0020 | 8.4100 | 0.0680 | 0.4000 | 354.0000 | 208.0000 | 21.1400 |
| 35 | 400.0000 | 2000.0000 | 0.0020 | 8.2900 | 0.0380 | 0.2850 | 323.0000 | 230.0000 | 21.7200 |
| 36 | 100.0000 | 2500.0000 | 0.0020 | 8.4000 | 0.0290 | 0.2570 | 308.0000 | 165.0000 | 24.3200 |
| 37 | 600.0000 | 2200.0000 | 0.0020 | 8.4100 | 0.0320 | 0.2620 | 308.0000 | 215.0000 | 24.5300 |
| 38 | 200.0000 | 2200.0000 | 0.0020 | 8.1100 | 0.0430 | 0.3600 | 301.0000 | 274.0000 | 25.2500 |
| 39 | 200.0000 | 2200.0000 | 0.0020 | 8.1800 | 0.0460 | 0.4230 | 340.0000 | 357.0000 | 43.7500 |
| 40 | 1400.0000 | 2300.0000 | 0.0020 | 8.2100 | 0.0480 | 0.2320 | 354.0000 | 166.0000 | 28.0200 |
| 41 | 1300.0000 | 2020.0000 | 0.0060 | 8.1000 | 0.0200 | 0.1120 | 309.0000 | 56.0000 | 9.2700 |
| 42 | 600.0000 | 980.0000 | 0.0100 | 8.3700 | 0.0065 | 0.1720 | 457.0000 | 144.0000 | 16.2300 |
| 43 | 740.0000 | 780.0000 | 0.0080 | 8.4000 | 0.0110 | 0.1720 | 440.0000 | 133.0000 | 15.8900 |
| 44 | 400.0000 | 580.0000 | 0.0040 | 8.4900 | 0.0060 | 0.2250 | 491.0000 | 141.0000 | 16.3100 |
| 45 | 1360.0000 | 1580.0000 | 0.0060 | 8.4300 | 0.0090 | 0.1800 | 427.0000 | 140.0000 | 16.3100 |
| 46 | 300.0000 | 340.0000 | 0.0180 | 8.5100 | 0.0080 | 0.0220 | 378.0000 | 7.6900 | 2.3600 |
| 47 | 1030.0000 | 1300.0000 | 0.0040 | 8.4900 | 0.0150 | 0.1430 | 423.0000 | 125.0000 | 16.3100 |
| 48 | 980.0000 | 1160.0000 | 0.0060 | 8.4500 | 0.0110 | 0.1450 | 403.0000 | 134.0000 | 13.8300 |
| 49 | 30.0000 | 30.0000 | 0.0520 | 8.4400 | 0.0030 | 0.0200 | 369.0000 | 17.5000 | 2.5900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #6

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.7705 | 0.2049 | -0.0244 | -0.1063 | -0.2164 | -0.0805 | -0.1441 | -0.1872 |
| 9 | 0.7705 | 1.0000 | -0.0034 | 0.0841 | -0.1323 | 0.0238 | -0.4263 | 0.1073 | 0.1323 |
| 46 | 0.2049 | -0.0034 | 1.0000 | 0.2016 | -0.1489 | -0.3864 | -0.0805 | -0.2562 | -0.3537 |
| 47 | -0.0244 | 0.0841 | 0.2016 | 1.0000 | -0.0397 | -0.3608 | -0.1569 | -0.4404 | -0.4047 |
| 48 | -0.1063 | -0.1323 | -0.1489 | -0.0397 | 1.0000 | 0.5709 | 0.1865 | -0.0342 | -0.0331 |
| 49 | -0.2164 | 0.0238 | -0.3864 | -0.3608 | 0.5709 | 1.0000 | -0.0752 | 0.7567 | 0.7454 |
| 50 | -0.0805 | -0.4263 | -0.0805 | -0.1569 | 0.1865 | -0.0752 | 1.0000 | -0.2346 | -0.2417 |
| 51 | -0.1441 | 0.1073 | -0.2562 | -0.4404 | -0.0342 | 0.7567 | -0.2346 | 1.0000 | 0.9255 |
| 52 | -0.1872 | 0.1323 | -0.3537 | -0.4047 | -0.0331 | 0.7454 | -0.2417 | 0.9255 | 1.0000 |

T STATISTIC FOR 47 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.2873 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 1.4355 | -0.0235 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -0.1674 | 0.5797 | 1.4112 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.7328 | -0.9148 | -1.0326 | -0.2727 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -1.5196 | 0.1633 | -2.8723 | -2.6525 | 4.7675 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -0.5539 | -3.2312 | -0.5533 | -1.0895 | 1.3012 | -0.5172 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.8981 | 0.7397 | -1.9173 | -3.3628 | -0.2346 | 7.9360 | -1.6542 | 0.0000 | 0.0000 |
| 52 | -1.3065 | 0.9148 | -2.5922 | -3.0345 | -0.2269 | 7.6670 | -1.7075 | 16.7568 | 0.0000 |

T 0.05[47] = 2.012

T 0.01[47] = 2.684

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station 47

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 100.0000 | 320.0000 | 0.0040 | 7.9100 | 0.0240 | 0.2020 | 374.0000 | 149.0000 | 19.7700 |
| 2 | 20.0000 | 20.0000 | 0.0620 | 8.4300 | 0.0100 | 0.0370 | 392.0000 | 19.9000 | 7.6700 |
| 3 | 560.0000 | 640.0000 | 0.0060 | 7.5500 | 0.0290 | 0.3530 | 369.0000 | 119.0000 | 20.1600 |
| 4 | 440.0000 | 720.0000 | 0.0080 | 7.5500 | 0.0390 | 0.8750 | 399.0000 | 751.0000 | 46.9200 |
| 5 | 600.0000 | 1520.0000 | 0.0080 | 7.6800 | 0.0440 | 0.6900 | 397.0000 | 597.0000 | 72.7000 |
| 6 | 600.0000 | 2100.0000 | 0.0080 | 7.7800 | 0.0305 | 0.5700 | 385.0000 | 423.0000 | 41.4800 |
| 7 | 240.0000 | 220.0000 | 0.0040 | 7.8000 | 0.0320 | 0.4250 | 370.0000 | 354.0000 | 28.6600 |
| 8 | 280.0000 | 220.0000 | 0.0040 | 8.1800 | 0.0260 | 0.2300 | 366.0000 | 132.0000 | 17.1100 |
| 9 | 140.0000 | 40.0000 | 0.0040 | 8.0500 | 0.0330 | 0.1640 | 373.0000 | 81.2000 | 13.9300 |
| 10 | 10.0000 | 50.0000 | 0.0060 | 8.1000 | 0.0180 | 0.0730 | 482.0000 | 26.8000 | 9.9400 |
| 11 | 20.0000 | 10.0000 | 0.0040 | 8.2900 | 0.0520 | 0.0870 | 485.0000 | 23.9000 | 8.0200 |
| 12 | 80.0000 | 110.0000 | 0.0060 | 8.2000 | 0.0135 | 0.0780 | 486.0000 | 21.7000 | 7.6700 |
| 13 | 20.0000 | 140.0000 | 0.0040 | 8.1600 | 0.0195 | 0.1100 | 537.0000 | 35.5000 | 11.0200 |
| 14 | 500.0000 | 240.0000 | 0.0040 | 8.1300 | 0.0245 | 0.1750 | 632.0000 | 52.3000 | 11.6500 |
| 15 | 420.0000 | 320.0000 | 0.0020 | 7.9800 | 0.0640 | 0.2270 | 533.0000 | 43.6000 | 11.9600 |
| 16 | 140.0000 | 180.0000 | 0.0040 | 7.8800 | 0.0815 | 0.2280 | 462.0000 | 87.4000 | 14.6100 |
| 17 | 280.0000 | 300.0000 | 0.0040 | 8.3800 | 0.0270 | 0.2930 | 414.0000 | 89.2000 | 25.1100 |
| 18 | 160.0000 | 60.0000 | 0.0020 | 8.2100 | 0.0250 | 0.1800 | 622.0000 | 119.0000 | 21.7600 |
| 19 | 220.0000 | 1560.0000 | 0.0100 | 8.1600 | 0.0265 | 0.1600 | 29.0000 | 62.9000 | 19.3800 |
| 20 | 60.0000 | 740.0000 | 0.0080 | 8.2200 | 0.0295 | 0.1500 | 425.0000 | 96.5000 | 17.8500 |
| 21 | 70.0000 | 90.0000 | 0.0020 | 8.0300 | 0.0105 | 0.1040 | 385.0000 | 29.7000 | 12.9300 |
| 22 | 40.0000 | 20.0000 | 0.0060 | 8.1600 | 0.0180 | 0.0650 | 372.0000 | 33.2000 | 13.5900 |
| 23 | 30.0000 | 10.0000 | 0.0080 | 8.0700 | 0.0155 | 0.0370 | 400.0000 | 51.9000 | 13.9300 |
| 24 | 130.0000 | 60.0000 | 0.0040 | 8.3200 | 0.0070 | 0.0300 | 438.0000 | 10.4000 | 8.5700 |
| 25 | 60.0000 | 60.0000 | 0.0060 | 8.1800 | 0.0075 | 0.0260 | 347.0000 | 6.0200 | 6.7400 |

| | | | | | | | | | |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 200.0000 | 60.0000 | 0.0120 | 8.3300 | 0.0055 | 0.0150 | 367.0000 | 9.2300 | 3.1100 |
| 27 | 2420.0000 | 960.0000 | 0.0040 | 8.4400 | 0.0130 | 0.0200 | 356.0000 | 11.3000 | 3.1700 |
| 28 | 540.0000 | 960.0000 | 0.0260 | 8.4600 | 0.0070 | 0.0270 | 364.0000 | 9.1500 | 3.4400 |
| 29 | 780.0000 | 1660.0000 | 0.0220 | 8.4900 | 0.0060 | 0.0380 | 372.0000 | 8.2900 | 3.7300 |
| 30 | 1620.0000 | 3900.0000 | 0.0240 | 8.5700 | 0.0065 | 0.0350 | 357.0000 | 21.6000 | 3.8100 |
| 31 | 1960.0000 | 4400.0000 | 0.0200 | 8.5400 | 0.0060 | 0.0300 | 353.0000 | 19.7000 | 4.5000 |
| 32 | 1660.0000 | 2940.0000 | 0.0140 | 8.5200 | 0.0075 | 0.0380 | 349.0000 | 8.2000 | 5.0300 |
| 33 | 2960.0000 | 2600.0000 | 0.0100 | 8.4500 | 0.0065 | 0.0380 | 351.0000 | 21.9000 | 4.8800 |
| 34 | 200.0000 | 1900.0000 | 0.0020 | 8.2400 | 0.0310 | 0.2520 | 367.0000 | 203.0000 | 22.5800 |
| 35 | 700.0000 | 2200.0000 | 0.0020 | 7.9000 | 0.0260 | 0.2620 | 331.0000 | 190.0000 | 23.4100 |
| 36 | 600.0000 | 1800.0000 | 0.0020 | 8.0900 | 0.0280 | 0.2600 | 306.0000 | 190.0000 | 32.4000 |
| 37 | 400.0000 | 1800.0000 | 0.0020 | 8.2700 | 0.0410 | 0.3900 | 294.0000 | 287.0000 | 35.8200 |
| 38 | 700.0000 | 2100.0000 | 0.0020 | 8.2600 | 0.0530 | 0.5250 | 332.0000 | 399.0000 | 45.8100 |
| 39 | 400.0000 | 1700.0000 | 0.0060 | 8.3000 | 0.0640 | 0.4250 | 311.0000 | 421.0000 | 45.8100 |
| 40 | 200.0000 | 1400.0000 | 0.0160 | 8.1600 | 0.0590 | 0.3750 | 331.0000 | 268.0000 | 42.0100 |
| 41 | 1000.0000 | 3200.0000 | 0.0060 | 8.4600 | 0.0550 | 0.3150 | 0.0000 | 0.0000 | 30.0400 |
| 42 | 1140.0000 | 1660.0000 | 0.0040 | 8.3400 | 0.0205 | 0.1120 | 326.0000 | 36.7000 | 8.4100 |
| 43 | 780.0000 | 860.0000 | 0.0080 | 8.3900 | 0.0110 | 0.1630 | 404.0000 | 92.2000 | 13.6600 |
| 44 | 380.0000 | 1100.0000 | 0.0080 | 8.2700 | 0.0150 | 0.1870 | 424.0000 | 149.0000 | 17.2600 |
| 45 | 1740.0000 | 1700.0000 | 0.0060 | 8.3600 | 0.0010 | 0.1870 | 447.0000 | 106.0000 | 17.7100 |
| 46 | 360.0000 | 860.0000 | 0.0060 | 8.3000 | 0.0120 | 0.1450 | 435.0000 | 120.0000 | 17.7100 |
| 47 | 120.0000 | 100.0000 | 0.0120 | 8.5700 | 0.0070 | 0.0210 | 368.0000 | 5.7000 | 2.7000 |
| 48 | 1140.0000 | 1340.0000 | 0.0060 | 8.4000 | 0.0070 | 0.1270 | 431.0000 | 109.0000 | 15.4500 |
| 49 | 1320.0000 | 1420.0000 | 0.0100 | 8.3600 | 0.0270 | 0.1270 | 440.0000 | 63.4000 | 14.1400 |
| 50 | 20.0000 | 30.0000 | 0.0480 | 8.4700 | 0.0035 | 0.0210 | 347.0000 | 13.9000 | 2.7600 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Fall 1982 and Spring 1983

Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6989 | 0.0116 | 0.3749 | -0.2548 | -0.1195 | -0.1638 | -0.1036 | -0.1503 |
| 9 | 0.6989 | 1.0000 | 0.0507 | 0.3006 | -0.0021 | 0.1352 | -0.4701 | 0.1261 | 0.1772 |
| 46 | 0.0116 | 0.0507 | 1.0000 | 0.3793 | -0.3390 | -0.2897 | -0.1098 | -0.2077 | -0.2859 |
| 47 | 0.3749 | 0.3006 | 0.3793 | 1.0000 | -0.4491 | -0.6665 | -0.1401 | -0.6053 | -0.5537 |
| 48 | -0.2548 | -0.0021 | -0.3390 | -0.4491 | 1.0000 | 0.6072 | -0.0902 | 0.4677 | 0.6002 |
| 49 | -0.1195 | 0.1352 | -0.2897 | -0.6665 | 0.6072 | 1.0000 | -0.1158 | 0.9412 | 0.9167 |
| 50 | -0.1638 | -0.4701 | -0.1098 | -0.1401 | -0.0902 | -0.1158 | 1.0000 | -0.0492 | -0.1874 |
| 51 | -0.1036 | 0.1261 | -0.2077 | -0.6053 | 0.4677 | 0.9412 | -0.0492 | 1.0000 | 0.8928 |
| 52 | -0.1503 | 0.1772 | -0.2859 | -0.5537 | 0.6002 | 0.9167 | -0.1874 | 0.8928 | 1.0000 |

T STATISTIC FOR 48 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 6.7696 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 0.0806 | 0.3515 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 2.8014 | 2.1832 | 2.8400 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -1.8254 | -0.0143 | -2.4963 | -3.4825 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -0.5338 | 0.9452 | -2.0966 | -6.1937 | 5.2941 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -1.1504 | -3.6897 | -0.7654 | -0.9802 | -0.6276 | -0.8077 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.7216 | 0.8808 | -1.4713 | -5.2678 | 3.6659 | 19.3047 | -0.3413 | 0.0000 | 0.0000 |
| 52 | -1.0533 | 1.2474 | -2.0671 | -4.6066 | 5.1984 | 15.8923 | -1.3216 | 13.7297 | 0.0000 |

T 0.05[48] = 2.010

T 0.01[48] = 2.652

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station 48

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 160.0000 | 220.0000 | 0.0040 | 7.7400 | 0.0270 | 0.1390 | 381.0000 | 77.1000 | 7.7000 |
| 2 | 20.0000 | 20.0000 | 0.0040 | 8.2700 | 0.0120 | 0.0410 | 426.0000 | 13.3000 | 1.9400 |
| 3 | 460.0000 | 540.0000 | 0.0080 | 7.5400 | 0.0360 | 0.2830 | 390.0000 | 235.0000 | 5.8000 |
| 4 | 320.0000 | 500.0000 | 0.0080 | 7.7700 | 0.0310 | 0.4200 | 404.0000 | 677.0000 | 15.2400 |
| 5 | 800.0000 | 1840.0000 | 0.0100 | 7.6800 | 0.0450 | 0.4200 | 388.0000 | 765.0000 | 30.0000 |
| 6 | 820.0000 | 8400.0000 | 0.0100 | 7.7700 | 0.0495 | 0.3400 | 378.0000 | 216.0000 | 17.1900 |
| 7 | 520.0000 | 500.0000 | 0.0060 | 7.8100 | 0.0505 | 0.3200 | 357.0000 | 145.0000 | 10.4900 |
| 8 | 340.0000 | 320.0000 | 0.0080 | 7.7700 | 0.0450 | 0.2220 | 383.0000 | 88.2000 | 5.1700 |
| 9 | 100.0000 | 160.0000 | 0.0060 | 8.0800 | 0.0410 | 0.3370 | 386.0000 | 65.7000 | 5.3800 |
| 10 | 10.0000 | 10.0000 | 0.0040 | 8.1000 | 0.0250 | 0.1100 | 492.0000 | 31.3000 | 2.1100 |
| 11 | 20.0000 | 20.0000 | 0.0160 | 8.1800 | 0.0140 | 0.0850 | 547.0000 | 17.8000 | 0.9600 |
| 12 | 250.0000 | 20.0000 | 0.0120 | 8.0500 | 0.0140 | 0.0610 | 553.0000 | 20.4000 | 1.0400 |
| 13 | 420.0000 | 220.0000 | 0.0100 | 7.8500 | 0.0120 | 0.0870 | 838.0000 | 40.4000 | 1.6800 |
| 14 | 800.0000 | 360.0000 | 0.0040 | 8.1000 | 0.0130 | 0.0660 | 568.0000 | 32.8000 | 1.6400 |
| 15 | 580.0000 | 220.0000 | 0.0060 | 7.8900 | 0.0110 | 0.0530 | 390.0000 | 24.1000 | 1.5200 |
| 16 | 200.0000 | 340.0000 | 0.0060 | 7.6200 | 0.0380 | 0.3150 | 448.0000 | 61.3000 | 2.9100 |
| 17 | 60.0000 | 260.0000 | 0.0040 | 7.7300 | 0.0200 | 0.1340 | 362.0000 | 18.3000 | 2.7000 |
| 18 | 20.0000 | 100.0000 | 0.0030 | 8.0700 | 0.0240 | 0.0870 | 376.0000 | 41.9000 | 2.1000 |
| 19 | 20.0000 | 820.0000 | 0.0100 | 7.9500 | 0.0250 | 0.1640 | 402.0000 | 56.3000 | 1.7000 |
| 20 | 40.0000 | 50.0000 | 0.0120 | 8.3700 | 0.0070 | 0.0910 | 475.0000 | 11.3000 | 0.7700 |
| 21 | 60.0000 | 40.0000 | 0.0040 | 8.1300 | 0.0090 | 0.0240 | 435.0000 | 4.7000 | 0.4400 |
| 22 | 120.0000 | 100.0000 | 0.0120 | 8.5300 | 0.0045 | 0.0210 | 439.0000 | 8.9600 | 0.4000 |
| 23 | 1980.0000 | 3220.0000 | 0.0240 | 8.3900 | 0.0030 | 0.0240 | 418.0000 | 4.9800 | 0.5600 |
| 24 | 6800.0000 | 15200.0000 | 0.0060 | 8.5300 | 0.0435 | 0.0850 | 382.0000 | 11.7000 | 0.6400 |
| 25 | 9100.0000 | 13000.0000 | 0.0050 | 8.2200 | 0.0025 | 0.0470 | 365.0000 | 11.1000 | 1.0400 |

| | | | | | | | | | |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 4900.0000 | 19000.0000 | 0.0320 | 8.1500 | 0.0035 | 0.0630 | 410.0000 | 24.7000 | 1.0500 |
| 27 | 1500.0000 | 7500.0000 | 0.0240 | 8.2000 | 0.0035 | 0.0750 | 377.0000 | 23.4000 | 0.9000 |
| 28 | 3800.0000 | 5500.0000 | 0.0260 | 8.1800 | 0.0055 | 0.0550 | 335.0000 | 6.3100 | 0.7700 |
| 29 | 3300.0000 | 3700.0000 | 0.0260 | 8.3000 | 0.0040 | 0.0470 | 340.0000 | 5.0900 | 0.6800 |
| 30 | 200.0000 | 600.0000 | 0.0080 | 8.2900 | 0.0260 | 0.1720 | 410.0000 | 108.0000 | 1.9100 |
| 31 | 200.0000 | 100.0000 | 0.0060 | 8.3500 | 0.0250 | 0.1670 | 418.0000 | 100.0000 | 2.3600 |
| 32 | 200.0000 | 600.0000 | 0.0040 | 8.4100 | 0.0300 | 0.2150 | 351.0000 | 118.0000 | 3.9900 |
| 33 | 200.0000 | 400.0000 | 0.0060 | 8.2800 | 0.0360 | 0.1830 | 341.0000 | 110.0000 | 4.3900 |
| 34 | 400.0000 | 100.0000 | 0.0080 | 8.1000 | 0.0480 | 0.2250 | 307.0000 | 127.0000 | 5.1300 |
| 35 | 500.0000 | 200.0000 | 0.0040 | 8.1700 | 0.0620 | 0.2400 | 323.0000 | 110.0000 | 5.7000 |
| 36 | 800.0000 | 1000.0000 | 0.0060 | 8.2500 | 0.0730 | 0.2700 | 367.0000 | 125.0000 | 11.4300 |
| 37 | 500.0000 | 1800.0000 | 0.0060 | 7.9300 | 0.0850 | 0.2720 | 353.0000 | 108.0000 | 7.9500 |
| 38 | 620.0000 | 1460.0000 | 0.0040 | 8.4400 | 0.0215 | 0.0850 | 348.0000 | 36.2000 | 1.4400 |
| 39 | 320.0000 | 420.0000 | 0.0080 | 8.2100 | 0.0220 | 0.1300 | 467.0000 | 94.5000 | 4.9700 |
| 40 | 220.0000 | 320.0000 | 0.0060 | 8.3800 | 0.0165 | 0.1050 | 505.0000 | 88.5000 | 5.1700 |
| 41 | 720.0000 | 820.0000 | 0.0100 | 8.2300 | 0.0200 | 0.1070 | 541.0000 | 79.6000 | 4.9700 |
| 42 | 1840.0000 | 1420.0000 | 0.0060 | 8.4400 | 0.0380 | 0.1170 | 526.0000 | 94.2000 | 4.6700 |
| 43 | 140.0000 | 50.0000 | 0.0180 | 8.4600 | 0.0040 | 0.0180 | 455.0000 | 3.6800 | 0.3300 |
| 44 | 1800.0000 | 2620.0000 | 0.0040 | 8.2900 | 0.0460 | 0.1100 | 524.0000 | 69.0000 | 4.0300 |
| 45 | 1480.0000 | 2440.0000 | 0.0040 | 8.4600 | 0.0050 | 0.1070 | 511.0000 | 83.9000 | 3.3800 |
| 46 | 80.0000 | 40.0000 | 0.0280 | 8.5000 | 0.0030 | 0.0180 | 487.0000 | 1.3600 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Fall 1982 and Spring 1983

Station #2

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.8586 | 0.2977 | 0.2284 | -0.1472 | -0.2567 | -0.1670 | -0.1471 | -0.1601 |
| 9 | 0.8586 | 1.0000 | 0.4125 | 0.1359 | -0.1064 | -0.1538 | -0.1923 | -0.0957 | -0.0616 |
| 46 | 0.2977 | 0.4125 | 1.0000 | 0.2101 | -0.4983 | -0.3606 | -0.0093 | -0.1684 | -0.2283 |
| 47 | 0.2284 | 0.1359 | 0.2101 | 1.0000 | -0.3462 | -0.6047 | 0.0722 | -0.4467 | -0.4932 |
| 48 | -0.1472 | -0.1064 | -0.4983 | -0.3462 | 1.0000 | 0.7417 | -0.3304 | 0.3729 | 0.5613 |
| 49 | -0.2567 | -0.1538 | -0.3606 | -0.6047 | 0.7417 | 1.0000 | -0.3136 | 0.7501 | 0.7962 |
| 50 | -0.1670 | -0.1923 | -0.0093 | 0.0722 | -0.3304 | -0.3136 | 1.0000 | -0.1500 | -0.2019 |
| 51 | -0.1471 | -0.0957 | -0.1684 | -0.4467 | 0.3729 | 0.7501 | -0.1500 | 1.0000 | 0.8819 |
| 52 | -0.1601 | -0.0616 | -0.2283 | -0.4932 | 0.5613 | 0.7962 | -0.2019 | 0.8819 | 1.0000 |

T STATISTIC FOR 44 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 11.1112 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 2.0685 | 3.6036 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 1.5562 | 0.9097 | 1.4258 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | -0.9871 | -0.7101 | -3.8122 | -2.4477 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | -1.7619 | -1.0324 | -2.5643 | -5.0365 | 7.3349 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -1.1235 | -1.3000 | -0.0617 | 0.4805 | -2.3222 | -2.1911 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.9862 | -0.6377 | -1.1333 | -3.3120 | 2.6654 | 7.5226 | -1.0064 | 0.0000 | 0.0000 |
| 52 | -1.0756 | -0.4092 | -1.5556 | -3.7609 | 4.4988 | 8.7302 | -1.3675 | 12.4087 | 0.0000 |

T 0.05[44] = 2.015

T 0.01[44] = 2.689

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #9

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 1 | 200.0000 | 300.0000 | 0.0040 | 7.9700 | 0.0250 | 0.1550 | 360.0000 | 201.0000 | 7.9500 |
| 2 | 20.0000 | 20.0000 | 0.0020 | 8.3200 | 0.0130 | 0.0320 | 368.0000 | 16.8000 | 1.8500 |
| 3 | 1100.0000 | 340.0000 | 0.0040 | 8.1000 | 0.0280 | 0.7150 | 387.0000 | 118.0000 | 6.9600 |
| 4 | 760.0000 | 1280.0000 | 0.0060 | 7.7000 | 0.0310 | 0.7600 | 380.0000 | 832.0000 | 16.0400 |
| 5 | 400.0000 | 900.0000 | 0.0100 | 7.8900 | 0.0390 | 0.6500 | 384.0000 | 618.0000 | 7.9700 |
| 6 | 340.0000 | 940.0000 | 0.0080 | 7.9600 | 0.0210 | 0.4650 | 415.0000 | 315.0000 | 17.0400 |
| 7 | 300.0000 | 160.0000 | 0.0060 | 7.9900 | 0.0250 | 0.5150 | 378.0000 | 359.0000 | 13.6800 |
| 8 | 220.0000 | 60.0000 | 0.0040 | 8.2000 | 0.0200 | 0.3200 | 354.0000 | 158.0000 | 7.3100 |
| 9 | 300.0000 | 40.0000 | 0.0020 | 8.2600 | 0.0310 | 0.2400 | 339.0000 | 91.5000 | 4.3600 |
| 10 | 20.0000 | 30.0000 | 0.0040 | 8.2600 | 0.1920 | 0.2650 | 454.0000 | 28.6000 | 3.2200 |
| 11 | 60.0000 | 10.0000 | 0.0060 | 8.2300 | 0.0245 | 0.0840 | 420.0000 | 34.9000 | 3.6400 |
| 12 | 140.0000 | 70.0000 | 0.0040 | 8.1500 | 0.0110 | 0.0680 | 444.0000 | 45.0000 | 3.4200 |
| 13 | 80.0000 | 240.0000 | 0.0060 | 7.8200 | 0.0480 | 0.2120 | 500.0000 | 77.0000 | 5.4100 |
| 14 | 400.0000 | 220.0000 | 0.0040 | 8.1600 | 0.0510 | 0.1750 | 431.0000 | 45.6000 | 4.8200 |
| 15 | 300.0000 | 260.0000 | 0.0040 | 8.2500 | 0.0235 | 0.1150 | 429.0000 | 43.8000 | 4.5400 |
| 16 | 280.0000 | 1080.0000 | 0.0040 | 8.2200 | 0.0950 | 0.4500 | 424.0000 | 313.0000 | 11.6300 |
| 17 | 20.0000 | 10.0000 | 0.0040 | 8.1800 | 0.0100 | 0.1250 | 379.0000 | 37.7000 | 6.1000 |
| 18 | 30.0000 | 30.0000 | 0.0040 | 8.2100 | 0.0300 | 0.0570 | 368.0000 | 39.9000 | 7.1500 |
| 19 | 70.0000 | 30.0000 | 0.0040 | 8.1700 | 0.0125 | 0.1110 | 374.0000 | 54.4000 | 7.1000 |
| 20 | 100.0000 | 10.0000 | 0.0040 | 8.3100 | 0.0070 | 0.0310 | 394.0000 | 8.9800 | 4.1500 |
| 21 | 40.0000 | 20.0000 | 0.0060 | 8.1500 | 0.0140 | 0.0310 | 324.0000 | 6.0600 | 2.7200 |
| 22 | 120.0000 | 120.0000 | 0.0040 | 8.4100 | 0.0030 | 0.0310 | 327.0000 | 34.0000 | 1.9200 |
| 23 | 580.0000 | 980.0000 | 0.0120 | 8.4700 | 0.0030 | 0.0290 | 331.0000 | 16.3000 | 1.8900 |
| 24 | 940.0000 | 3800.0000 | 0.0240 | 8.5400 | 0.0125 | 0.0340 | 349.0000 | 15.5000 | 2.6300 |
| 25 | 4100.0000 | 9000.0000 | 0.0060 | 8.2700 | 0.1500 | 1.4300 | 0.0000 | 0.0000 | 3.3600 |

| | | | | | | | | | |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 4700.0000 | 25000.0000 | 0.2260 | 8.1100 | 0.1200 | 0.4550 | 326.0000 | 142.0000 | 2.8900 |
| 27 | 1700.0000 | 5000.0000 | 0.1720 | 8.4000 | 0.0850 | 0.2270 | 319.0000 | 79.8000 | 2.5000 |
| 28 | 3600.0000 | 6300.0000 | 0.1120 | 8.3300 | 0.0560 | 0.1150 | 324.0000 | 41.5000 | 2.2600 |
| 29 | 1700.0000 | 2700.0000 | 0.0800 | 8.5500 | 0.0410 | 0.0790 | 334.0000 | 27.7000 | 2.1800 |
| 30 | 100.0000 | 700.0000 | 0.0060 | 8.3100 | 0.0400 | 0.3100 | 352.0000 | 168.0000 | 12.1900 |
| 31 | 200.0000 | 1400.0000 | 0.0160 | 8.2200 | 0.0320 | 0.3650 | 357.0000 | 158.0000 | 13.2000 |
| 32 | 600.0000 | 2000.0000 | 0.0060 | 8.3500 | 0.0890 | 0.3970 | 320.0000 | 216.0000 | 13.7700 |
| 33 | 100.0000 | 600.0000 | 0.0060 | 8.3200 | 0.0390 | 0.2900 | 311.0000 | 180.0000 | 15.9300 |
| 34 | 400.0000 | 900.0000 | 0.0060 | 8.5500 | 0.0960 | 0.3100 | 308.0000 | 278.0000 | 18.4700 |
| 35 | 300.0000 | 900.0000 | 0.0060 | 8.3400 | 0.0630 | 0.3950 | 332.0000 | 394.0000 | 26.9300 |
| 36 | 300.0000 | 800.0000 | 0.0040 | 8.2900 | 0.0500 | 0.3850 | 333.0000 | 287.0000 | 29.4700 |
| 37 | 100.0000 | 2400.0000 | 0.0040 | 8.4100 | 0.0380 | 0.2170 | 364.0000 | 173.0000 | 17.5400 |
| 38 | 540.0000 | 1340.0000 | 0.0060 | 8.4800 | 0.0165 | 0.0750 | 385.0000 | 56.5000 | 4.1300 |
| 39 | 2100.0000 | 1790.0000 | 0.0140 | 8.4700 | 0.0245 | 0.1170 | 344.0000 | 59.8000 | 4.6100 |
| 40 | 580.0000 | 1500.0000 | 0.0040 | 8.4900 | 0.0250 | 0.1770 | 362.0000 | 154.0000 | 6.0200 |
| 41 | 120.0000 | 1100.0000 | 0.0020 | 8.4400 | 0.0090 | 0.1230 | 435.0000 | 113.0000 | 8.1500 |
| 42 | 1380.0000 | 1960.0000 | 0.0060 | 8.5200 | 0.0700 | 0.1500 | 445.0000 | 134.0000 | 7.9400 |
| 43 | 110.0000 | 120.0000 | 0.0060 | 8.3300 | 0.0070 | 0.0270 | 377.0000 | 8.3600 | 1.6800 |
| 44 | 700.0000 | 1020.0000 | 0.0060 | 8.5000 | 0.0120 | 0.1170 | 415.0000 | 105.0000 | 7.1200 |
| 45 | 720.0000 | 1190.0000 | 0.0020 | 8.5100 | 0.0095 | 0.1000 | 401.0000 | 87.6000 | 6.4600 |
| 46 | 60.0000 | 40.0000 | 0.0360 | 8.4800 | 0.0045 | 0.0190 | 385.0000 | 3.0800 | 1.6700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria

Fall 1982 and Spring 1983

Station #9

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.8450 | 0.7021 | 0.0894 | 0.4632 | 0.4169 | -0.5467 | -0.0899 | -0.2390 |
| 9 | 0.8450 | 1.0000 | 0.8087 | -0.0012 | 0.4581 | 0.3081 | -0.3796 | -0.0321 | -0.1484 |
| 46 | 0.7021 | 0.8087 | 1.0000 | 0.0556 | 0.3212 | 0.0136 | -0.1763 | -0.0949 | -0.2515 |
| 47 | 0.0894 | -0.0012 | 0.0556 | 1.0000 | -0.0311 | -0.4250 | -0.1793 | -0.5216 | -0.1506 |
| 48 | 0.4632 | 0.4581 | 0.3212 | -0.0311 | 1.0000 | 0.5244 | -0.3181 | 0.0916 | 0.1190 |
| 49 | 0.4169 | 0.3081 | 0.0136 | -0.4250 | 0.5244 | 1.0000 | -0.5552 | 0.5068 | 0.3363 |
| 50 | -0.5467 | -0.3796 | -0.1763 | -0.1793 | -0.3181 | -0.5552 | 1.0000 | 0.0583 | -0.0351 |
| 51 | -0.0899 | -0.0321 | -0.0949 | -0.5216 | 0.0916 | 0.5068 | 0.0583 | 1.0000 | 0.6460 |
| 52 | -0.2390 | -0.1484 | -0.2515 | -0.1506 | 0.1190 | 0.3363 | -0.0351 | 0.6460 | 1.0000 |

T STATISTIC FOR 44 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 10.4809 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 6.5400 | 9.1198 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 0.5957 | -0.0080 | 0.3697 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 3.4672 | 3.4183 | 2.2500 | -0.2061 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 3.0428 | 2.1482 | 0.0904 | -3.1142 | 4.0851 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -4.3313 | -2.7219 | -1.1882 | -1.2087 | -2.2254 | -4.4279 | 0.0000 | 0.0000 | 0.0000 |
| 51 | -0.5988 | -0.2131 | -0.6325 | -4.0550 | 0.6102 | 3.8995 | 0.3874 | 0.0000 | 0.0000 |
| 52 | -1.6325 | -0.9954 | -1.7235 | -1.0105 | 0.7953 | 2.3689 | -0.2328 | 5.6135 | 0.0000 |

T 0.05[44] = 2.015

T 0.01[44] = 2.689

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|----------|-----------|--------|--------|--------|--------|----------|-----------|---------|
| 1 | 320.0000 | 500.0000 | 0.0040 | 8.0200 | 0.0205 | 0.2120 | 363.0000 | 150.0000 | 8.9500 |
| 2 | 20.0000 | 20.0000 | 0.0060 | 8.3800 | 0.0100 | 0.0520 | 341.0000 | 25.7000 | 3.2700 |
| 3 | 440.0000 | 100.0000 | 0.0080 | 8.0400 | 0.0250 | 0.2720 | 374.0000 | 83.5000 | 5.4100 |
| 4 | 900.0000 | 900.0000 | 0.0060 | 7.7200 | 0.0370 | 1.0700 | 392.0000 | 1114.0000 | 14.6400 |
| 5 | 540.0000 | 1260.0000 | 0.0100 | 7.8600 | 0.0360 | 0.6800 | 381.0000 | 642.0000 | 17.1200 |
| 6 | 320.0000 | 1140.0000 | 0.0040 | 7.9100 | 0.0265 | 0.9400 | 396.0000 | 618.0000 | 15.1900 |
| 7 | 420.0000 | 180.0000 | 0.0060 | 7.9100 | 0.0240 | 0.6100 | 0.0000 | 375.0000 | 12.6100 |
| 8 | 140.0000 | 40.0000 | 0.0040 | 8.1100 | 0.0190 | 0.1650 | 357.0000 | 164.0000 | 8.2300 |
| 9 | 100.0000 | 20.0000 | 0.0040 | 8.2600 | 0.0145 | 0.1130 | 446.0000 | 79.7000 | 7.1000 |
| 10 | 30.0000 | 10.0000 | 0.0040 | 8.1500 | 0.0110 | 0.0570 | 372.0000 | 27.9000 | 4.4400 |
| 11 | 30.0000 | 10.0000 | 0.0040 | 8.3300 | 0.0100 | 0.0600 | 391.0000 | 46.7000 | 3.3300 |
| 12 | 290.0000 | 70.0000 | 0.0200 | 8.1700 | 0.0110 | 0.0590 | 407.0000 | 37.8000 | 3.6100 |
| 13 | 320.0000 | 20.0000 | 0.0060 | 8.2200 | 0.0080 | 0.0690 | 402.0000 | 36.1000 | 4.2800 |
| 14 | 300.0000 | 40.0000 | 0.0020 | 8.0900 | 0.0110 | 0.0580 | 397.0000 | 36.4000 | 4.2600 |
| 15 | 340.0000 | 20.0000 | 0.0100 | 8.2500 | 0.0110 | 0.0580 | 387.0000 | 35.6000 | 4.1600 |
| 16 | 240.0000 | 140.0000 | 0.0040 | 8.1100 | 0.0205 | 0.1600 | 405.0000 | 82.7000 | 5.3500 |
| 17 | 240.0000 | 260.0000 | 0.0040 | 8.3100 | 0.0300 | 0.2420 | 377.0000 | 180.0000 | 11.5200 |
| 18 | 100.0000 | 1500.0000 | 0.0060 | 8.3100 | 0.0235 | 0.1970 | 395.0000 | 110.0000 | 7.5400 |
| 19 | 140.0000 | 320.0000 | 0.0040 | 8.2800 | 0.0255 | 0.1250 | 384.0000 | 149.0000 | 7.5400 |
| 20 | 200.0000 | 140.0000 | 0.0060 | 8.1800 | 0.0260 | 0.2000 | 374.0000 | 90.1000 | 7.6300 |
| 21 | 20.0000 | 10.0000 | 0.0020 | 8.1900 | 0.0110 | 0.0740 | 359.0000 | 33.6000 | 5.7800 |
| 22 | 70.0000 | 10.0000 | 0.0060 | 8.1700 | 0.0100 | 0.0100 | 336.0000 | 39.4000 | 6.7900 |
| 23 | 10.0000 | 20.0000 | 0.0040 | 8.1300 | 0.0100 | 0.0990 | 341.0000 | 59.9000 | 6.8300 |
| 24 | 20.0000 | 10.0000 | 0.0050 | 8.2900 | 0.0070 | 0.0490 | 388.0000 | 15.0000 | 3.9500 |
| 25 | 40.0000 | 20.0000 | 0.0040 | 8.1400 | 0.0070 | 0.0370 | 333.0000 | 9.7000 | 3.0000 |

| | | | | | | | | | |
|----|-----------|-----------|--------|--------|--------|--------|----------|----------|---------|
| 26 | 20.0000 | 40.0000 | 0.0100 | 8.4600 | 0.0035 | 0.0260 | 353.0000 | 19.1000 | 2.4900 |
| 27 | 20.0000 | 40.0000 | 0.0220 | 8.4100 | 0.0025 | 0.0190 | 354.0000 | 9.9800 | 2.4900 |
| 28 | 100.0000 | 40.0000 | 0.0180 | 8.3000 | 0.0025 | 0.0180 | 338.0000 | 10.1000 | 2.5500 |
| 29 | 140.0000 | 260.0000 | 0.0280 | 8.4100 | 0.0020 | 0.0300 | 352.0000 | 8.3700 | 2.6700 |
| 30 | 160.0000 | 460.0000 | 0.0060 | 8.4400 | 0.0035 | 0.0380 | 351.0000 | 13.9000 | 2.6700 |
| 31 | 760.0000 | 2020.0000 | 0.0080 | 8.4400 | 0.0035 | 0.0310 | 349.0000 | 11.0000 | 2.6100 |
| 32 | 1300.0000 | 3200.0000 | 0.0160 | 8.4800 | 0.0030 | 0.0310 | 349.0000 | 7.8700 | 2.6100 |
| 33 | 600.0000 | 600.0000 | 0.0040 | 8.3200 | 0.0360 | 0.2900 | 339.0000 | 243.0000 | 12.9400 |
| 34 | 100.0000 | 800.0000 | 0.0040 | 8.3800 | 0.0320 | 0.2220 | 332.0000 | 227.0000 | 11.6000 |
| 35 | 100.0000 | 900.0000 | 0.0040 | 8.2700 | 0.0340 | 0.2270 | 336.0000 | 186.0000 | 12.1100 |
| 36 | 500.0000 | 1100.0000 | 0.0040 | 8.2300 | 0.0380 | 0.2570 | 338.0000 | 189.0000 | 13.5800 |
| 37 | 200.0000 | 900.0000 | 0.0080 | 8.1600 | 0.0520 | 0.3670 | 336.0000 | 226.0000 | 19.0400 |
| 38 | 300.0000 | 800.0000 | 0.0060 | 8.2600 | 0.0560 | 0.4150 | 330.0000 | 285.0000 | 21.2500 |
| 39 | 400.0000 | 300.0000 | 0.0040 | 8.3100 | 0.0580 | 0.3450 | 350.0000 | 272.0000 | 21.3800 |
| 40 | 500.0000 | 1400.0000 | 0.0060 | 8.2900 | 0.0340 | 0.2150 | 351.0000 | 160.0000 | 14.1200 |
| 41 | 1020.0000 | 1340.0000 | 0.0040 | 8.2700 | 0.0260 | 0.1370 | 360.0000 | 95.5000 | 3.7300 |
| 42 | 660.0000 | 820.0000 | 0.0260 | 8.4700 | 0.0135 | 0.0730 | 350.0000 | 54.6000 | 4.3100 |
| 43 | 580.0000 | 860.0000 | 0.0020 | 8.4200 | 0.0205 | 0.1320 | 384.0000 | 109.0000 | 7.0100 |
| 44 | 860.0000 | 1320.0000 | 0.0060 | 8.4200 | 0.0100 | 0.1270 | 401.0000 | 122.0000 | 8.2600 |
| 45 | 1040.0000 | 8600.0000 | 1.0400 | 8.4800 | 0.0390 | 0.2320 | 421.0000 | 187.0000 | 8.1800 |
| 46 | 60.0000 | 40.0000 | 0.0040 | 8.3300 | 0.0080 | 0.0210 | 373.0000 | 12.1000 | 2.1000 |
| 47 | 780.0000 | 940.0000 | 0.0100 | 8.2800 | 0.0225 | 0.1020 | 435.0000 | 48.4000 | 7.4700 |
| 48 | 540.0000 | 700.0000 | 0.0140 | 8.4800 | 0.0570 | 0.0930 | 496.0000 | 75.9000 | 6.7900 |
| 49 | 50.0000 | 30.0000 | 0.0180 | 8.4600 | 0.0035 | 0.0180 | 347.0000 | 20.3000 | 2.3000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #10

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6338 | 0.3274 | 0.0539 | 0.2682 | 0.2726 | 0.0880 | 0.2990 | 0.1599 |
| 9 | 0.6338 | 1.0000 | 0.8719 | 0.2402 | 0.2591 | 0.1406 | 0.1346 | 0.1450 | 0.1294 |
| 46 | 0.3274 | 0.8719 | 1.0000 | 0.2065 | 0.1633 | 0.0201 | 0.1340 | 0.0265 | -0.0001 |
| 47 | 0.0539 | 0.2402 | 0.2065 | 1.0000 | -0.2003 | -0.6978 | 0.2182 | -0.6595 | -0.3971 |
| 48 | 0.2682 | 0.2591 | 0.1633 | -0.2003 | 1.0000 | 0.5632 | 0.0436 | 0.5271 | 0.8488 |
| 49 | 0.2726 | 0.1406 | 0.0201 | -0.6978 | 0.5632 | 1.0000 | -0.1995 | 0.9607 | 0.7293 |
| 50 | 0.0880 | 0.1346 | 0.1340 | 0.2182 | 0.0436 | -0.1995 | 1.0000 | -0.1132 | -0.1800 |
| 51 | 0.2990 | 0.1450 | 0.0265 | -0.6595 | 0.5271 | 0.9607 | -0.1132 | 1.0000 | 0.6828 |
| 52 | 0.1599 | 0.1294 | -0.0001 | -0.3971 | 0.8488 | 0.7293 | -0.1800 | 0.6828 | 1.0000 |

T STATISTIC FOR 47 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|--------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 5.6176 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 2.3754 | 12.2084 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | 0.3700 | 1.6965 | 1.4470 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.9390 | 1.8394 | 1.1346 | -1.4017 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 1.9427 | 0.9738 | 0.1376 | -6.6779 | 4.6722 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | 0.6059 | 0.9314 | 0.9273 | 1.5331 | 0.2989 | -1.3960 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 2.1482 | 1.0046 | 0.1820 | -6.0148 | 4.2518 | 23.7419 | -0.7812 | 0.0000 | 0.0000 |
| 52 | 1.1103 | 0.8945 | -0.0006 | -2.9664 | 11.0059 | 7.3077 | -1.2541 | 6.4068 | 0.0000 |

T 0.05[47] = 2.012

T 0.01[47] = 2.684

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Conventional Water Quality Parameters and Bacteria
 Fall 1982 and Spring 1983
 Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES; ROWS = OBSERVATIONS

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|-----------|-----------|--------|--------|--------|--------|-----------|----------|--------|
| 1 | 600.0000 | 330.0000 | 0.0120 | 7.9900 | 0.1320 | 0.1630 | 640.0000 | 16.9000 | 0.5800 |
| 2 | 80.0000 | 20.0000 | 0.0140 | 7.8300 | 0.0170 | 0.0430 | 877.0000 | 7.2000 | 0.2000 |
| 3 | 1250.0000 | 740.0000 | 0.0040 | 7.2900 | 0.0350 | 0.8100 | 531.0000 | 278.0000 | 2.0800 |
| 4 | 660.0000 | 1320.0000 | 0.0120 | 7.7100 | 0.0410 | 0.5150 | 335.0000 | 393.0000 | 4.7100 |
| 5 | 1580.0000 | 1080.0000 | 0.0080 | 7.6400 | 0.0380 | 0.3200 | 480.0000 | 268.0000 | 2.4400 |
| 6 | 860.0000 | 520.0000 | 0.0040 | 7.9300 | 0.0275 | 0.1550 | 618.0000 | 80.8000 | 1.1100 |
| 7 | 420.0000 | 120.0000 | 0.0040 | 8.0100 | 0.0225 | 0.0950 | 639.0000 | 42.5000 | 0.8000 |
| 8 | 760.0000 | 340.0000 | 0.0080 | 8.0300 | 0.0170 | 0.1120 | 1096.0000 | 22.9000 | 0.5300 |
| 9 | 2400.0000 | 140.0000 | 0.0020 | 7.9400 | 0.0415 | 0.1000 | 1164.0000 | 21.5000 | 0.8400 |
| 10 | 440.0000 | 180.0000 | 0.0460 | 7.9500 | 0.0260 | 0.0950 | 2523.0000 | 43.7000 | 0.5900 |
| 11 | 160.0000 | 140.0000 | 0.0360 | 8.0100 | 0.0260 | 0.0980 | 1467.0000 | 16.2000 | 0.4100 |
| 12 | 920.0000 | 260.0000 | 0.0260 | 7.9800 | 0.0250 | 0.0490 | 1295.0000 | 11.3000 | 0.2800 |
| 13 | 480.0000 | 100.0000 | 0.0380 | 8.0800 | 0.0180 | 0.0840 | 1212.0000 | 8.4000 | 0.3200 |
| 14 | 740.0000 | 840.0000 | 0.2980 | 7.1900 | 0.0080 | 0.5000 | 3191.0000 | 174.0000 | 1.0500 |
| 15 | 1080.0000 | 1060.0000 | 0.0120 | 7.7700 | 0.0285 | 0.4270 | 1135.0000 | 124.0000 | 1.6400 |
| 16 | 1460.0000 | 500.0000 | 0.0080 | 7.3000 | 0.0250 | 0.4820 | 975.0000 | 73.9000 | 1.0800 |
| 17 | 520.0000 | 220.0000 | 0.0040 | 7.4500 | 0.0165 | 0.1610 | 881.0000 | 35.1000 | 1.0200 |
| 18 | 1260.0000 | 420.0000 | 0.0020 | 7.4300 | 0.0295 | 0.2100 | 765.0000 | 77.5000 | 1.4600 |
| 19 | 1300.0000 | 660.0000 | 0.0060 | 7.7900 | 0.0320 | 0.1800 | 695.0000 | 80.0000 | 1.5300 |
| 20 | 1900.0000 | 580.0000 | 0.0040 | 7.7800 | 0.0330 | 0.4870 | 673.0000 | 88.4000 | 1.4300 |
| 21 | 360.0000 | 160.0000 | 0.0020 | 8.1000 | 0.0270 | 0.1070 | 740.0000 | 35.4000 | 0.7300 |
| 22 | 140.0000 | 120.0000 | 0.0040 | 8.0600 | 0.0060 | 0.0420 | 836.0000 | 17.9000 | 0.4500 |
| 23 | 200.0000 | 240.0000 | 0.0480 | 8.0600 | 0.0135 | 0.0830 | 874.0000 | 6.9700 | 0.4500 |
| 24 | 210.0000 | 50.0000 | 0.0100 | 7.9900 | 0.0210 | 0.0460 | 868.0000 | 13.3000 | 0.4400 |
| 25 | 620.0000 | 120.0000 | 0.0120 | 8.0600 | 0.0350 | 0.0720 | 1049.0000 | 9.3000 | 0.3000 |

| | | | | | | | | | |
|----|-----------|------------|--------|--------|--------|--------|----------|----------|--------|
| 24 | 320.0000 | 80.0000 | 0.0040 | 7.8200 | 0.0100 | 0.0250 | 868.0000 | 3.7200 | 0.1700 |
| 27 | 420.0000 | 440.0000 | 0.0400 | 8.2600 | 0.0180 | 0.0420 | 764.0000 | 4.6900 | 0.1100 |
| 28 | 1300.0000 | 9200.0000 | 0.2780 | 8.3500 | 0.0450 | 0.1120 | 647.0000 | 51.0000 | 0.1700 |
| 29 | 2700.0000 | 3500.0000 | 0.2960 | 7.6600 | 0.0700 | 0.2020 | 521.0000 | 27.0000 | 0.8800 |
| 30 | 8500.0000 | 7000.0000 | 0.6900 | 7.9400 | 0.0550 | 1.1500 | 506.0000 | 572.0000 | 1.9600 |
| 31 | 4300.0000 | 31000.0000 | 0.7300 | 7.1300 | 0.1300 | 1.5000 | 511.0000 | 517.0000 | 1.8400 |
| 32 | 4100.0000 | 14000.0000 | 0.5700 | 7.0900 | 0.0500 | 0.8750 | 463.0000 | 447.0000 | 1.7600 |
| 33 | 3700.0000 | 11000.0000 | 0.0780 | 7.9000 | 0.0950 | 0.4750 | 308.0000 | 176.0000 | 1.3300 |
| 34 | 3300.0000 | 17000.0000 | 0.0140 | 8.0900 | 0.0755 | 0.2430 | 381.0000 | 67.3000 | 0.6200 |
| 35 | 500.0000 | 1000.0000 | 0.0100 | 8.1900 | 0.0590 | 0.1670 | 207.0000 | 55.6000 | 0.9600 |
| 36 | 100.0000 | 2000.0000 | 0.0160 | 8.1700 | 0.0390 | 0.2950 | 359.0000 | 56.1000 | 1.2000 |
| 37 | 1000.0000 | 3800.0000 | 0.0120 | 7.7500 | 0.0360 | 0.2170 | 265.0000 | 97.1000 | 2.4400 |
| 38 | 400.0000 | 500.0000 | 0.0080 | 8.2200 | 0.0410 | 0.1500 | 226.0000 | 80.1000 | 2.9300 |
| 39 | 500.0000 | 900.0000 | 0.0040 | 8.2800 | 0.0590 | 0.2470 | 236.0000 | 116.0000 | 4.4400 |
| 40 | 700.0000 | 1100.0000 | 0.0100 | 8.1200 | 0.0590 | 0.2270 | 312.0000 | 99.7000 | 3.5900 |
| 41 | 400.0000 | 1200.0000 | 0.0080 | 8.1800 | 0.0630 | 0.2150 | 309.0000 | 75.3000 | 3.1400 |
| 42 | 5900.0000 | 7700.0000 | 0.0020 | 7.8700 | 0.0350 | 0.2020 | 260.0000 | 84.2000 | 1.3900 |
| 43 | 4800.0000 | 5900.0000 | 0.0060 | 8.1300 | 0.0300 | 0.1530 | 239.0000 | 67.3000 | 1.7600 |
| 44 | 3300.0000 | 6300.0000 | 0.0080 | 7.9500 | 0.0320 | 0.1430 | 224.0000 | 67.5000 | 2.0000 |
| 45 | 4500.0000 | 6100.0000 | 0.0020 | 7.7500 | 0.0460 | 0.1850 | 238.0000 | 49.6000 | 1.3900 |
| 46 | 4700.0000 | 5500.0000 | 0.0040 | 8.0800 | 0.0390 | 0.1400 | 239.0000 | 51.9000 | 1.1700 |
| 47 | 1460.0000 | 190.0000 | 0.0860 | 8.3800 | 0.1780 | 0.2250 | 944.0000 | 2.6200 | 0.1300 |
| 48 | 420.0000 | 340.0000 | 0.0440 | 8.1300 | 0.0170 | 0.1130 | 880.0000 | 23.0000 | 0.1000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Conventional Water Quality Parameters and Bacteria
Fall 1982 and Spring 1983
Station #11

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8 | 1.0000 | 0.6140 | 0.5358 | -0.2076 | 0.2727 | 0.5297 | -0.3304 | 0.5386 | 0.1386 |
| 9 | 0.6140 | 1.0000 | 0.6662 | -0.3138 | 0.4490 | 0.6503 | -0.2896 | 0.5678 | 0.1016 |
| 46 | 0.5358 | 0.6662 | 1.0000 | -0.4100 | 0.3242 | 0.7811 | 0.0575 | 0.7462 | 0.0379 |
| 47 | -0.2076 | -0.3138 | -0.4100 | 1.0000 | 0.0771 | -0.6075 | -0.2096 | -0.5353 | -0.1413 |
| 48 | 0.2727 | 0.4490 | 0.3242 | 0.0771 | 1.0000 | 0.3693 | -0.2818 | 0.2467 | 0.1235 |
| 49 | 0.5297 | 0.6503 | 0.7811 | -0.6075 | 0.3693 | 1.0000 | -0.1043 | 0.9147 | 0.3599 |
| 50 | -0.3304 | -0.2896 | 0.0575 | -0.2096 | -0.2818 | -0.1043 | 1.0000 | -0.1709 | -0.4264 |
| 51 | 0.5386 | 0.5678 | 0.7462 | -0.5353 | 0.2467 | 0.9147 | -0.1709 | 1.0000 | 0.5106 |
| 52 | 0.1386 | 0.1016 | 0.0379 | -0.1413 | 0.1235 | 0.3599 | -0.4264 | 0.5106 | 1.0000 |

T STATISTIC FOR 46 DEGREES OF FREEDOM

| | 8 | 9 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 8 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 5.2763 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 46 | 4.3035 | 6.0583 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 47 | -1.4396 | -2.2415 | -3.0491 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 48 | 1.9224 | 3.4086 | 2.3245 | 0.5247 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 49 | 4.2353 | 5.8051 | 8.4842 | -5.1866 | 2.6952 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 50 | -2.3740 | -2.0522 | 0.3907 | -1.4538 | -1.9919 | -0.7113 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.3353 | 4.6786 | 7.6019 | -4.2979 | 1.7264 | 15.3553 | -1.1765 | 0.0000 | 0.0000 |
| 52 | 0.9491 | 0.6924 | 0.2573 | -0.9683 | 0.8444 | 2.6162 | -3.1976 | 4.0282 | 0.0000 |

T 0.05[46] = 2.013

T 0.01[46] = 2.687

Appendix J, Table 6
Correlations: Metals, Bacteria
and Residue Particulate,
Fall 1982 and Spring 1983

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station 43

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|------------|------------|----------|---------|
| 1 | 0.0007 | 0.0070 | 0.0130 | 0.0080 | 0.0090 | 0.0200 | 240.0000 | 260.0000 | 134.0000 | 3.8200 |
| 2 | 0.0006 | 0.0020 | 0.0090 | 0.0030 | 0.0030 | 0.0010 | 40.0000 | 20.0000 | 12.6000 | 2.3500 |
| 3 | 0.0009 | 0.0300 | 0.0270 | 0.0150 | 0.0390 | 0.1000 | 1360.0000 | 780.0000 | 161.0000 | 8.2200 |
| 4 | 0.0020 | 0.0250 | 0.0380 | 0.0280 | 0.0640 | 0.1100 | 1900.0000 | 1300.0000 | 581.0000 | 14.1000 |
| 5 | 0.0020 | 0.0200 | 0.0340 | 0.0230 | 0.0310 | 0.0730 | 840.0000 | 540.0000 | 594.0000 | 14.1700 |
| 6 | 0.0010 | 0.0130 | 0.0240 | 0.0190 | 0.0140 | 0.0380 | 620.0000 | 440.0000 | 403.0000 | 8.1200 |
| 7 | 0.0010 | 0.0100 | 0.0220 | 0.0160 | 0.0110 | 0.0340 | 340.0000 | 260.0000 | 285.0000 | 4.7500 |
| 8 | 0.0007 | 0.0050 | 0.0170 | 0.0070 | 0.0090 | 0.0180 | 520.0000 | 120.0000 | 106.0000 | 4.2400 |
| 9 | 0.0004 | 0.0040 | 0.0120 | 0.0050 | 0.0030 | 0.0120 | 560.0000 | 80.0000 | 69.6000 | 3.6200 |
| 10 | 0.0002 | 0.0040 | 0.0130 | 0.0030 | 0.0080 | 0.0120 | 110.0000 | 70.0000 | 23.7000 | 1.6200 |
| 11 | 0.0006 | 0.0030 | 0.0180 | 0.0030 | 0.0060 | 0.0140 | 160.0000 | 40.0000 | 18.8000 | 2.6500 |
| 12 | 0.0020 | 0.0090 | 0.0220 | 0.0090 | 0.0480 | 0.0150 | 180.0000 | 110.0000 | 16.7000 | 2.3000 |
| 13 | 0.0006 | 0.0050 | 0.0140 | 0.0040 | 0.0070 | 0.0270 | 220.0000 | 60.0000 | 16.9000 | 5.6300 |
| 14 | 0.0006 | 0.0040 | 0.0180 | 0.0040 | 0.0330 | 0.0350 | 4900.0000 | 1700.0000 | 34.9000 | 5.0600 |
| 15 | 0.0006 | 0.0090 | 0.0200 | 0.0060 | 0.0420 | 0.0520 | 720.0000 | 620.0000 | 53.1000 | 4.3400 |
| 16 | 0.0002 | 0.0030 | 0.0090 | 0.0010 | 0.0030 | 0.0200 | 340.0000 | 400.0000 | 146.0000 | 7.2300 |
| 17 | 0.0006 | 0.0050 | 0.0150 | 0.0060 | 0.0040 | 0.0160 | 60.0000 | 80.0000 | 87.4000 | 4.7900 |
| 18 | 0.0004 | 0.0030 | 0.0130 | 0.0030 | 0.0030 | 0.0020 | 80.0000 | 70.0000 | 29.4000 | 3.9600 |
| 19 | 0.0004 | 0.0030 | 0.0220 | 0.0030 | 0.0030 | 0.0080 | 70.0000 | 20.0000 | 34.1000 | 5.5500 |
| 20 | 0.0004 | 0.0100 | 0.0190 | 0.0100 | 0.0100 | 0.0180 | 320.0000 | 40.0000 | 37.4000 | 4.2400 |
| 21 | 0.0006 | 0.0020 | 0.0240 | 0.0010 | 0.0030 | 0.0070 | 60.0000 | 60.0000 | 6.0100 | 3.0300 |
| 22 | 0.0007 | 0.0020 | 0.0060 | 0.0010 | 0.0110 | 0.0050 | 340.0000 | 60.0000 | 15.5000 | 4.1000 |
| 23 | 0.0006 | 0.0010 | 0.0150 | 0.0010 | 0.0130 | 0.0290 | 1120.0000 | 4600.0000 | 6.0700 | 5.0600 |
| 24 | 0.0005 | 0.0110 | 0.0170 | 0.0080 | 0.0230 | 0.0480 | 500.0000 | 3100.0000 | 286.0000 | 15.3400 |
| 25 | 0.0005 | 0.0130 | 0.0220 | 0.0070 | 0.0330 | 0.0540 | 18000.0000 | 53000.0000 | 220.0000 | 23.3500 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 26 | 0.0005 | 0.0100 | 0.0160 | 0.0080 | 0.0200 | 0.0420 | 1000.0000 | 1000.0000 | 288.0000 | 37.3900 |
| 27 | 0.0004 | 0.0080 | 0.1300 | 0.0060 | 0.0130 | 0.0270 | 500.0000 | 3500.0000 | 163.0000 | 38.7700 |
| 28 | 0.0002 | 0.0090 | 0.0150 | 0.0040 | 0.0160 | 0.0330 | 1240.0000 | 1220.0000 | 51.6000 | 11.1000 |
| 29 | 0.0002 | 0.0070 | 0.0190 | 0.0040 | 0.0160 | 0.0400 | 940.0000 | 1140.0000 | 56.9000 | 13.8300 |
| 30 | 0.0002 | 0.0050 | 0.0070 | 0.0010 | 0.0030 | 0.0050 | 520.0000 | 100.0000 | 2.4300 | 2.5700 |
| 31 | 0.0002 | 0.0060 | 0.0190 | 0.0030 | 0.0130 | 0.0290 | 800.0000 | 1100.0000 | 65.3000 | 12.5200 |
| 32 | 0.0002 | 0.0040 | 0.0080 | 0.0040 | 0.0030 | 0.0070 | 140.0000 | 60.0000 | 8.0000 | 3.7900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #3

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|--------|---------|--------|--------|---------|---------|--------|---------|
| 1 | 1.0000 | 0.5928 | 0.1527 | 0.7893 | 0.6504 | 0.5228 | -0.0147 | -0.0586 | 0.6336 | -0.0105 |
| 2 | 0.5928 | 1.0000 | 0.2566 | 0.8374 | 0.7930 | 0.9053 | 0.1289 | 0.0721 | 0.7200 | 0.2998 |
| 3 | 0.1527 | 0.2566 | 1.0000 | 0.2418 | 0.1916 | 0.2385 | 0.0221 | 0.0622 | 0.2760 | 0.6414 |
| 5 | 0.7893 | 0.8374 | 0.2418 | 1.0000 | 0.6065 | 0.7504 | 0.0461 | -0.0041 | 0.8983 | 0.2071 |
| 6 | 0.6504 | 0.7930 | 0.1916 | 0.6065 | 1.0000 | 0.8430 | 0.3058 | 0.2020 | 0.4809 | 0.2269 |
| 7 | 0.5228 | 0.9053 | 0.2385 | 0.7504 | 0.8430 | 1.0000 | 0.2857 | 0.2050 | 0.7282 | 0.3826 |
| 8 | -0.0147 | 0.1289 | 0.0221 | 0.0461 | 0.3058 | 0.2857 | 1.0000 | 0.9657 | 0.1522 | 0.3172 |
| 9 | -0.0586 | 0.0721 | 0.0622 | -0.0041 | 0.2020 | 0.2050 | 0.9657 | 1.0000 | 0.1264 | 0.3463 |
| 51 | 0.6336 | 0.7200 | 0.2760 | 0.8983 | 0.4809 | 0.7282 | 0.1522 | 0.1264 | 1.0000 | 0.4455 |
| 52 | -0.0105 | 0.2998 | 0.6414 | 0.2071 | 0.2269 | 0.3826 | 0.3172 | 0.3463 | 0.4455 | 1.0000 |

T STATISTIC FOR 30 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|--------|---------|--------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 4.0314 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.8461 | 1.4542 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 7.0397 | 8.3929 | 1.3650 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.6898 | 7.1302 | 1.0693 | 4.1786 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 3.3587 | 11.6764 | 1.3451 | 6.2180 | 8.5836 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.0803 | 0.7118 | 0.1212 | 0.2529 | 1.7593 | 1.6329 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.3216 | 0.3961 | 0.3411 | -0.0224 | 1.1298 | 1.1469 | 20.3732 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.4859 | 5.6825 | 1.5728 | 11.1985 | 3.0038 | 5.8193 | 0.8437 | 0.6981 | 0.0000 | 0.0000 |
| 52 | -0.0575 | 1.7212 | 4.5792 | 1.1595 | 1.2758 | 2.2680 | 1.8321 | 2.0218 | 2.7255 | 0.0000 |

T 0.05[30] = 2.042

T 0.01[30] = 2.750

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station #4

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|---------|
| 1 | 0.0007 | 0.0070 | 0.0130 | 0.0030 | 0.0060 | 0.0270 | 100.0000 | 2700.0000 | 19.4000 | 1.5100 |
| 2 | 0.0006 | 0.0010 | 0.0130 | 0.0030 | 0.0060 | 0.0090 | 20.0000 | 20.0000 | 11.1000 | 0.3000 |
| 3 | 0.0020 | 0.0310 | 0.0420 | 0.0260 | 0.0920 | 0.2000 | 600.0000 | 860.0000 | 193.0000 | 12.5100 |
| 4 | 0.0020 | 0.0400 | 0.0430 | 0.0380 | 0.0610 | 0.1900 | 1000.0000 | 200.0000 | 758.0000 | 9.5700 |
| 5 | 0.0010 | 0.0200 | 0.0240 | 0.0170 | 0.0200 | 0.0930 | 320.0000 | 660.0000 | 257.0000 | 5.1500 |
| 6 | 0.0007 | 0.0090 | 0.0140 | 0.0060 | 0.0080 | 0.0350 | 160.0000 | 140.0000 | 65.8000 | 2.2100 |
| 7 | 0.0006 | 0.0070 | 0.0140 | 0.0040 | 0.0060 | 0.0300 | 240.0000 | 40.0000 | 30.6000 | 1.6700 |
| 8 | 0.0007 | 0.0250 | 0.0230 | 0.0020 | 0.0060 | 0.0250 | 40.0000 | 100.0000 | 11.1000 | 1.1900 |
| 9 | 0.0009 | 0.0120 | 0.0160 | 0.0090 | 0.0090 | 0.0230 | 660.0000 | 460.0000 | 6.7100 | 0.8700 |
| 10 | 0.0004 | 0.0050 | 0.0240 | 0.0030 | 0.0190 | 0.0400 | 130.0000 | 2500.0000 | 17.3000 | 1.2000 |
| 11 | 0.0006 | 0.0050 | 0.0190 | 0.0040 | 0.0060 | 0.0300 | 30.0000 | 70.0000 | 6.5200 | 0.9900 |
| 12 | 0.0002 | 0.0060 | 0.0220 | 0.0020 | 0.0060 | 0.0320 | 80.0000 | 1230.0000 | 5.9500 | 0.9000 |
| 13 | 0.0008 | 0.0070 | 0.0170 | 0.0040 | 0.0090 | 0.0390 | 160.0000 | 720.0000 | 3.7000 | 1.1100 |
| 14 | 0.0010 | 0.0140 | 0.0390 | 0.0120 | 0.1100 | 0.1600 | 140.0000 | 660.0000 | 92.8000 | 3.2800 |
| 15 | 0.0010 | 0.0180 | 0.0240 | 0.0080 | 0.0580 | 0.1200 | 120.0000 | 660.0000 | 78.6000 | 3.1400 |
| 16 | 0.0005 | 0.0080 | 0.0150 | 0.0050 | 0.0090 | 0.0480 | 140.0000 | 540.0000 | 52.4000 | 1.7500 |
| 17 | 0.0005 | 0.0090 | 0.0200 | 0.0020 | 0.0050 | 0.0210 | 290.0000 | 710.0000 | 21.8000 | 1.0100 |
| 18 | 0.0005 | 0.0080 | 0.0150 | 0.0040 | 0.0030 | 0.0180 | 10.0000 | 160.0000 | 7.0200 | 0.9100 |
| 19 | 0.0007 | 0.0200 | 0.0340 | 0.0100 | 0.0090 | 0.0240 | 110.0000 | 160.0000 | 6.8900 | 0.6400 |
| 20 | 0.0008 | 0.0040 | 0.0250 | 0.0020 | 0.0080 | 0.0150 | 60.0000 | 1500.0000 | 4.6300 | 0.4700 |
| 21 | 0.0002 | 0.0450 | 0.0190 | 0.0560 | 0.0040 | 0.0840 | 620.0000 | 620.0000 | 4.9500 | 0.4000 |
| 22 | 0.0004 | 0.0250 | 0.0220 | 0.0150 | 0.0310 | 0.0500 | 6300.0000 | 10900.0000 | 46.3000 | 1.8600 |
| 23 | 0.0010 | 0.0050 | 0.0220 | 0.0020 | 0.0420 | 0.0820 | 6900.0000 | 13000.0000 | 4.9200 | 1.0900 |
| 24 | 0.0005 | 0.0220 | 0.0170 | 0.0060 | 0.0190 | 0.0550 | 300.0000 | 1100.0000 | 96.6000 | 2.9100 |
| 25 | 0.0004 | 0.0170 | 0.0170 | 0.0030 | 0.0280 | 0.0600 | 100.0000 | 1900.0000 | 47.8000 | 3.3900 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|--------|
| 26 | 0.0010 | 0.0330 | 0.0370 | 0.0160 | 0.0620 | 0.1300 | 1800.0000 | 2300.0000 | 261.0000 | 5.4600 |
| 27 | 0.0005 | 0.0140 | 0.0150 | 0.0060 | 0.0240 | 0.0580 | 700.0000 | 1000.0000 | 120.0000 | 6.0900 |
| 28 | 0.0020 | 0.0200 | 0.0300 | 0.0100 | 0.0300 | 0.1400 | 3400.0000 | 7900.0000 | 165.0000 | 3.8600 |
| 29 | 0.0006 | 0.0270 | 0.0190 | 0.0040 | 0.0350 | 0.1100 | 2700.0000 | 5900.0000 | 86.7000 | 4.1900 |
| 30 | 0.0002 | 0.0080 | 0.0170 | 0.0030 | 0.0040 | 0.0230 | 740.0000 | 580.0000 | 35.3000 | 0.3800 |
| 31 | 0.0003 | 0.0050 | 0.0120 | 0.0020 | 0.0080 | 0.0320 | 220.0000 | 140.0000 | 18.2000 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #4

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|---------|--------|--------|--------|---------|---------|---------|
| 1 | 1.0000 | 0.3847 | 0.7140 | 0.3344 | 0.6172 | 0.7652 | 0.1881 | 0.1508 | 0.6689 | 0.7257 |
| 2 | 0.3847 | 1.0000 | 0.5592 | 0.8170 | 0.4281 | 0.6586 | 0.1770 | 0.0595 | 0.5752 | 0.5765 |
| 3 | 0.7140 | 0.5592 | 1.0000 | 0.4638 | 0.7667 | 0.7761 | 0.1292 | 0.0694 | 0.6213 | 0.6443 |
| 5 | 0.3344 | 0.8170 | 0.4638 | 1.0000 | 0.3192 | 0.5683 | 0.0638 | -0.0677 | 0.5179 | 0.4364 |
| 6 | 0.6172 | 0.4281 | 0.7667 | 0.3192 | 1.0000 | 0.8779 | 0.2268 | 0.1831 | 0.4908 | 0.7053 |
| 7 | 0.7652 | 0.6586 | 0.7761 | 0.5683 | 0.8779 | 1.0000 | 0.2370 | 0.1804 | 0.7023 | 0.8287 |
| 8 | 0.1881 | 0.1770 | 0.1292 | 0.0638 | 0.2268 | 0.2370 | 1.0000 | 0.9562 | 0.0615 | 0.0605 |
| 9 | 0.1508 | 0.0595 | 0.0694 | -0.0677 | 0.1831 | 0.1804 | 0.9562 | 1.0000 | -0.0552 | -0.0106 |
| 51 | 0.6689 | 0.5752 | 0.6213 | 0.5179 | 0.4908 | 0.7023 | 0.0615 | -0.0552 | 1.0000 | 0.7512 |
| 52 | 0.7257 | 0.5765 | 0.6443 | 0.4364 | 0.7053 | 0.8287 | 0.0605 | -0.0106 | 0.7512 | 1.0000 |

T STATISTIC FOR 29 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|---------|--------|--------|---------|---------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 2.2443 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.4922 | 3.6327 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 1.9107 | 7.6287 | 2.8192 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.2241 | 2.5509 | 6.4318 | 1.8137 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 6.4010 | 4.7133 | 6.6284 | 3.7193 | 9.8748 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 1.0315 | 0.9684 | 0.7017 | 0.3445 | 1.2541 | 1.3136 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.8212 | 0.3207 | 0.3747 | -0.3652 | 1.0031 | 0.9875 | 17.5957 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.8462 | 3.7866 | 4.2699 | 3.2602 | 3.0338 | 5.3128 | 0.3320 | -0.2978 | 0.0000 | 0.0000 |
| 52 | 5.6805 | 3.7998 | 4.5365 | 2.6122 | 5.3579 | 7.9742 | 0.3263 | -0.0570 | 6.1281 | 0.0000 |

T 0.05[29] = 2.045

T 0.01[29] = 2.756

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982 and Spring 1983
Station #5

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-------------|------------|----------|--------|
| 1 | 0.0006 | 0.0120 | 0.0180 | 0.0090 | 0.0100 | 0.0300 | 560.0000 | 540.0000 | 14.7000 | 0.7800 |
| 2 | 0.0005 | 0.0010 | 0.0250 | 0.0080 | 0.0060 | 0.0280 | 80.0000 | 40.0000 | 6.5600 | 0.2700 |
| 3 | 0.0010 | 0.0140 | 0.0370 | 0.0190 | 0.1400 | 0.1600 | 1200.0000 | 1900.0000 | 151.0000 | 3.8200 |
| 4 | 0.0020 | 0.0230 | 0.0470 | 0.0270 | 0.1600 | 0.2000 | 11900.0000 | 4100.0000 | 337.0000 | 9.6500 |
| 5 | 0.0008 | 0.0180 | 0.0250 | 0.0170 | 0.0400 | 0.0770 | 1440.0000 | 1580.0000 | 229.0000 | 3.5500 |
| 6 | 0.0007 | 0.0100 | 0.0190 | 0.0090 | 0.0120 | 0.0380 | 1020.0000 | 280.0000 | 76.3000 | 1.5500 |
| 7 | 0.0006 | 0.0080 | 0.0180 | 0.0070 | 0.0090 | 0.0300 | 1260.0000 | 220.0000 | 36.6000 | 1.0500 |
| 8 | 0.0007 | 0.0070 | 0.0180 | 0.0050 | 0.0070 | 0.0340 | 1660.0000 | 220.0000 | 16.2000 | 0.7300 |
| 9 | 0.0005 | 0.0110 | 0.0190 | 0.0070 | 0.0080 | 0.0340 | 2800.0000 | 180.0000 | 14.7000 | 0.5700 |
| 10 | 0.0030 | 0.0120 | 0.0330 | 0.0150 | 0.0920 | 0.0580 | 1580.0000 | 220.0000 | 33.2000 | 0.8400 |
| 11 | 0.0007 | 0.0040 | 0.0240 | 0.0100 | 0.0310 | 0.0530 | 260.0000 | 80.0000 | 20.9000 | 0.5200 |
| 12 | 0.0007 | 0.0080 | 0.0220 | 0.0070 | 0.0190 | 0.0500 | 960.0000 | 100.0000 | 12.8000 | 0.5100 |
| 13 | 0.0002 | 0.0130 | 0.0280 | 0.0050 | 0.0310 | 0.0510 | 2100.0000 | 780.0000 | 8.7200 | 0.3600 |
| 14 | 0.0006 | 0.0090 | 0.0200 | 0.0060 | 0.0110 | 0.0550 | 880.0000 | 380.0000 | 5.3900 | 0.4100 |
| 15 | 0.0010 | 0.0140 | 0.0420 | 0.0100 | 0.1200 | 0.1300 | 69000.0000 | 12100.0000 | 68.4000 | 1.7500 |
| 16 | 0.0020 | 0.0130 | 0.0390 | 0.0120 | 0.1700 | 0.1700 | 3700.0000 | 1100.0000 | 71.6000 | 2.2200 |
| 17 | 0.0009 | 0.0120 | 0.0320 | 0.0120 | 0.0760 | 0.1100 | 2600.0000 | 600.0000 | 74.4000 | 2.4600 |
| 18 | 0.0004 | 0.0070 | 0.0220 | 0.0100 | 0.0040 | 0.0220 | 300.0000 | 240.0000 | 9.7000 | 0.6300 |
| 19 | 0.0005 | 0.0080 | 0.0300 | 0.0060 | 0.0030 | 0.0290 | 680.0000 | 160.0000 | 6.3500 | 0.6000 |
| 20 | 0.0003 | 0.0120 | 0.0290 | 0.0070 | 0.0120 | 0.0540 | 400.0000 | 50.0000 | 10.5000 | 0.7300 |
| 21 | 0.0007 | 0.0100 | 0.0390 | 0.0050 | 0.0180 | 0.0390 | 3900.0000 | 1300.0000 | 3.9400 | 0.5200 |
| 22 | 0.0005 | 0.0070 | 0.0150 | 0.0180 | 0.0060 | 0.0340 | 2600.0000 | 700.0000 | 7.8000 | 0.2300 |
| 23 | 0.0007 | 0.0110 | 0.0170 | 0.0090 | 0.0330 | 0.0560 | 60000.0000 | 13600.0000 | 28.4000 | 0.5200 |
| 24 | 0.0018 | 0.0200 | 0.0720 | 0.0150 | 0.2000 | 0.3200 | 240000.0000 | 80000.0000 | 269.0000 | 1.7400 |
| 25 | 0.0016 | 0.0430 | 0.0510 | 0.0180 | 0.1800 | 0.2500 | 6100.0000 | 32000.0000 | 285.0000 | 3.2500 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|------------|------------|---------|--------|
| 26 | 0.0006 | 0.0110 | 0.0210 | 0.0080 | 0.0750 | 0.0820 | 1000.0000 | 1000.0000 | 82.3000 | 6.1700 |
| 27 | 0.0004 | 0.0090 | 0.0130 | 0.0060 | 0.0330 | 0.0500 | 2200.0000 | 1800.0000 | 84.0000 | 6.9700 |
| 28 | 0.0006 | 0.0100 | 0.0160 | 0.0060 | 0.0460 | 0.0580 | 2100.0000 | 3100.0000 | 67.5000 | 4.9400 |
| 29 | 0.0009 | 0.0070 | 0.0260 | 0.0080 | 0.0650 | 0.0940 | 75000.0000 | 36000.0000 | 70.3000 | 3.7600 |
| 30 | 0.0007 | 0.0070 | 0.0260 | 0.0060 | 0.0700 | 0.0890 | 5200.0000 | 6700.0000 | 47.9000 | 2.4200 |
| 31 | 0.0002 | 0.0210 | 0.0200 | 0.0040 | 0.0070 | 0.0400 | 1360.0000 | 220.0000 | 9.6200 | 0.3000 |
| 32 | 0.0005 | 0.0390 | 0.0170 | 0.0150 | 0.0050 | 0.0490 | 4300.0000 | 240.0000 | 9.5500 | 0.2500 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #5

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.2773 | 0.6221 | 0.5887 | 0.7353 | 0.6087 | 0.2925 | 0.3465 | 0.5232 | 0.2611 |
| 2 | 0.2773 | 1.0000 | 0.4000 | 0.5067 | 0.4396 | 0.5277 | 0.1276 | 0.3015 | 0.5448 | 0.1842 |
| 3 | 0.6221 | 0.4000 | 1.0000 | 0.4903 | 0.8368 | 0.8838 | 0.6341 | 0.6949 | 0.6794 | 0.1943 |
| 5 | 0.5887 | 0.5067 | 0.4903 | 1.0000 | 0.6209 | 0.6056 | 0.1501 | 0.2237 | 0.7387 | 0.4363 |
| 6 | 0.7353 | 0.4396 | 0.8368 | 0.6209 | 1.0000 | 0.9451 | 0.4945 | 0.5927 | 0.7760 | 0.4967 |
| 7 | 0.6087 | 0.5277 | 0.8838 | 0.6056 | 0.9451 | 1.0000 | 0.6340 | 0.7474 | 0.8319 | 0.4230 |
| 8 | 0.2925 | 0.1276 | 0.6341 | 0.1501 | 0.4945 | 0.6340 | 1.0000 | 0.9221 | 0.3946 | 0.0163 |
| 9 | 0.3465 | 0.3015 | 0.6949 | 0.2237 | 0.5927 | 0.7474 | 0.9221 | 1.0000 | 0.5377 | 0.1011 |
| 51 | 0.5232 | 0.5448 | 0.6794 | 0.7387 | 0.7760 | 0.8319 | 0.3946 | 0.5377 | 1.0000 | 0.6760 |
| 52 | 0.2611 | 0.1842 | 0.1943 | 0.4363 | 0.4967 | 0.4230 | 0.0163 | 0.1011 | 0.6760 | 1.0000 |

T STATISTIC FOR 30 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|---------|--------|---------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.5810 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 4.3520 | 2.3905 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 3.9889 | 3.2195 | 3.0812 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 5.9416 | 2.6806 | 8.3718 | 4.3385 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 4.2026 | 3.4029 | 10.3487 | 4.1681 | 15.8360 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 1.6756 | 0.7045 | 4.4911 | 0.8314 | 3.1159 | 4.4910 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 2.0229 | 1.7317 | 5.2933 | 1.2570 | 4.0309 | 6.1619 | 13.0489 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 3.3629 | 3.5584 | 5.0713 | 6.0030 | 6.7382 | 8.2126 | 2.3524 | 3.4933 | 0.0000 | 0.0000 |
| 52 | 1.4812 | 1.0264 | 1.0850 | 2.6557 | 3.1345 | 2.5566 | 0.0890 | 0.5567 | 5.0248 | 0.0000 |

T 0.05[30] = 2.042

T 0.01[30] = 2.750

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station 46

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0030 | 0.0190 | 0.0090 | 0.0060 | 0.0240 | 240.0000 | 340.0000 | 160.0000 | 20.7600 |
| 2 | 0.0010 | 0.0020 | 0.0120 | 0.0020 | 0.0060 | 0.0010 | 20.0000 | 20.0000 | 17.8000 | 5.0900 |
| 3 | 0.0007 | 0.0230 | 0.0220 | 0.0120 | 0.0400 | 0.0820 | 460.0000 | 780.0000 | 140.0000 | 20.5700 |
| 4 | 0.0020 | 0.0260 | 0.0370 | 0.0300 | 0.0470 | 0.1000 | 1060.0000 | 820.0000 | 765.0000 | 44.0200 |
| 5 | 0.0020 | 0.0200 | 0.0340 | 0.0310 | 0.0270 | 0.0700 | 680.0000 | 780.0000 | 610.0000 | 64.3600 |
| 6 | 0.0010 | 0.0120 | 0.0230 | 0.0190 | 0.0110 | 0.0360 | 300.0000 | 1160.0000 | 402.0000 | 32.7700 |
| 7 | 0.0007 | 0.0090 | 0.0220 | 0.0130 | 0.0070 | 0.0300 | 340.0000 | 300.0000 | 322.0000 | 25.5600 |
| 8 | 0.0008 | 0.0050 | 0.0160 | 0.0080 | 0.0100 | 0.0130 | 300.0000 | 240.0000 | 120.0000 | 15.2100 |
| 9 | 0.0007 | 0.0040 | 0.0130 | 0.0070 | 0.0050 | 0.0120 | 340.0000 | 80.0000 | 76.4000 | 12.0400 |
| 10 | 0.0010 | 0.0040 | 0.0140 | 0.0060 | 0.0180 | 0.0100 | 20.0000 | 20.0000 | 23.2000 | 7.2600 |
| 11 | 0.0008 | 0.0060 | 0.0150 | 0.0040 | 0.0080 | 0.0140 | 70.0000 | 20.0000 | 20.6000 | 5.4500 |
| 12 | 0.0002 | 0.0020 | 0.0120 | 0.0020 | 0.0050 | 0.0080 | 110.0000 | 530.0000 | 22.0000 | 5.7100 |
| 13 | 0.0006 | 0.0040 | 0.0120 | 0.0040 | 0.0070 | 0.0130 | 80.0000 | 60.0000 | 21.2000 | 5.9000 |
| 14 | 0.0009 | 0.0060 | 0.0200 | 0.0050 | 0.0480 | 0.0460 | 1760.0000 | 780.0000 | 45.5000 | 8.0200 |
| 15 | 0.0007 | 0.0190 | 0.0170 | 0.0060 | 0.0300 | 0.0400 | 540.0000 | 260.0000 | 43.4000 | 8.7400 |
| 16 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 220.0000 | 540.0000 | 108.0000 | 16.4800 |
| 17 | 0.0005 | 0.0030 | 0.0100 | 0.0030 | 0.0030 | 0.0030 | 30.0000 | 80.0000 | 36.2000 | 11.3000 |
| 18 | 0.0006 | 0.0030 | 0.0240 | 0.0030 | 0.0030 | 0.0090 | 20.0000 | 20.0000 | 30.7000 | 12.2700 |
| 19 | 0.0005 | 0.0070 | 0.0240 | 0.0070 | 0.0080 | 0.0160 | 50.0000 | 20.0000 | 48.4000 | 11.6700 |
| 20 | 0.0005 | 0.0020 | 0.0190 | 0.0010 | 0.0030 | 0.0040 | 110.0000 | 30.0000 | 7.8700 | 5.9000 |
| 21 | 0.0006 | 0.0030 | 0.0080 | 0.0010 | 0.0030 | 0.0380 | 160.0000 | 100.0000 | 11.9000 | 2.9100 |
| 22 | 0.0002 | 0.0030 | 0.0070 | 0.0020 | 0.0060 | 0.0150 | 580.0000 | 860.0000 | 11.9000 | 3.5900 |
| 23 | 0.0002 | 0.0040 | 0.0090 | 0.0030 | 0.0090 | 0.0150 | 9200.0000 | 4200.0000 | 9.8700 | 4.5700 |
| 24 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0130 | 0.0250 | 1900.0000 | 1740.0000 | 19.1000 | 4.9500 |
| 25 | 0.0003 | 0.0080 | 0.0130 | 0.0060 | 0.0130 | 0.0340 | 700.0000 | 1200.0000 | 227.0000 | 19.4400 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 26 | 0.0004 | 0.0090 | 0.0140 | 0.0060 | 0.0210 | 0.0380 | 400.0000 | 2000.0000 | 230.0000 | 21.7200 |
| 27 | 0.0004 | 0.0120 | 0.0140 | 0.0070 | 0.0200 | 0.0480 | 600.0000 | 2200.0000 | 215.0000 | 24.5300 |
| 28 | 0.0002 | 0.0060 | 0.0130 | 0.0050 | 0.0080 | 0.0240 | 1400.0000 | 2300.0000 | 166.0000 | 28.0200 |
| 29 | 0.0003 | 0.0090 | 0.0260 | 0.0040 | 0.0120 | 0.0370 | 600.0000 | 980.0000 | 144.0000 | 16.2300 |
| 30 | 0.0003 | 0.0080 | 0.0200 | 0.0040 | 0.0140 | 0.0340 | 400.0000 | 580.0000 | 141.0000 | 16.3100 |
| 31 | 0.0002 | 0.0040 | 0.0050 | 0.0040 | 0.0030 | 0.0060 | 300.0000 | 340.0000 | 7.6900 | 2.3600 |
| 32 | 0.0003 | 0.0050 | 0.0070 | 0.0050 | 0.0080 | 0.0420 | 30.0000 | 30.0000 | 17.5000 | 2.5900 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #6

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.6340 | 0.7716 | 0.8424 | 0.5920 | 0.5926 | -0.1359 | -0.2303 | 0.7013 | 0.6499 |
| 2 | 0.6340 | 1.0000 | 0.6940 | 0.7655 | 0.7731 | 0.8903 | -0.0233 | 0.1061 | 0.6957 | 0.6633 |
| 3 | 0.7716 | 0.6940 | 1.0000 | 0.7900 | 0.5752 | 0.6356 | -0.1025 | -0.0952 | 0.7194 | 0.7057 |
| 5 | 0.8424 | 0.7655 | 0.7900 | 1.0000 | 0.5566 | 0.7332 | -0.0383 | 0.0346 | 0.9248 | 0.8815 |
| 6 | 0.5920 | 0.7731 | 0.5752 | 0.5566 | 1.0000 | 0.8174 | 0.1026 | 0.1636 | 0.4982 | 0.4248 |
| 7 | 0.5926 | 0.8903 | 0.6356 | 0.7332 | 0.8174 | 1.0000 | 0.0303 | 0.1912 | 0.7221 | 0.6407 |
| 8 | -0.1359 | -0.0233 | -0.1025 | -0.0383 | 0.1026 | 0.0303 | 1.0000 | 0.7998 | -0.0431 | -0.0663 |
| 9 | -0.2303 | 0.1061 | -0.0952 | 0.0346 | 0.1636 | 0.1912 | 0.7998 | 1.0000 | 0.1588 | 0.1825 |
| 51 | 0.7013 | 0.6957 | 0.7194 | 0.9248 | 0.4982 | 0.7221 | -0.0431 | 0.1588 | 1.0000 | 0.9258 |
| 52 | 0.6499 | 0.6633 | 0.7057 | 0.8815 | 0.4248 | 0.6407 | -0.0663 | 0.1825 | 0.9258 | 1.0000 |

T STATISTIC FOR 30 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 4.4900 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 6.6432 | 5.2796 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 8.5642 | 6.5153 | 7.0569 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.0235 | 6.6759 | 3.8513 | 3.6691 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 4.0292 | 10.7062 | 4.5095 | 5.9056 | 7.7704 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.7514 | -0.1279 | -0.5644 | -0.2101 | 0.5648 | 0.1661 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -1.2963 | 0.5842 | -0.5236 | 0.1897 | 0.9081 | 1.0668 | 7.2974 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 5.3884 | 5.3048 | 5.6734 | 13.3095 | 3.1474 | 5.7176 | -0.2363 | 0.8811 | 0.0000 | 0.0000 |
| 52 | 4.6833 | 4.8548 | 5.4549 | 10.2228 | 2.5702 | 4.5705 | -0.3641 | 1.0169 | 13.4142 | 0.0000 |

T 0.05[30] = 2.042

T 0.01[30] = 2.750

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #7

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0060 | 0.0160 | 0.0110 | 0.0080 | 0.0150 | 100.0000 | 320.0000 | 149.0000 | 19.7700 |
| 2 | 0.0002 | 0.0020 | 0.0110 | 0.0030 | 0.0090 | 0.0010 | 20.0000 | 20.0000 | 19.9000 | 7.6700 |
| 3 | 0.0008 | 0.0310 | 0.0230 | 0.0110 | 0.0380 | 0.1000 | 560.0000 | 640.0000 | 119.0000 | 20.1600 |
| 4 | 0.0010 | 0.0280 | 0.0370 | 0.0280 | 0.0360 | 0.0870 | 440.0000 | 720.0000 | 751.0000 | 46.9200 |
| 5 | 0.0010 | 0.0190 | 0.0320 | 0.0270 | 0.0200 | 0.0670 | 600.0000 | 1520.0000 | 597.0000 | 72.7000 |
| 6 | 0.0010 | 0.0120 | 0.0230 | 0.0180 | 0.0150 | 0.0360 | 600.0000 | 2100.0000 | 423.0000 | 41.4800 |
| 7 | 0.0008 | 0.0090 | 0.0210 | 0.0140 | 0.0090 | 0.0280 | 240.0000 | 220.0000 | 354.0000 | 28.6600 |
| 8 | 0.0005 | 0.0040 | 0.0130 | 0.0060 | 0.0050 | 0.0130 | 280.0000 | 220.0000 | 132.0000 | 17.1100 |
| 9 | 0.0006 | 0.0040 | 0.0130 | 0.0050 | 0.0090 | 0.0170 | 140.0000 | 40.0000 | 81.2000 | 13.9300 |
| 10 | 0.0009 | 0.0030 | 0.0140 | 0.0080 | 0.0170 | 0.0080 | 10.0000 | 50.0000 | 26.8000 | 9.9400 |
| 11 | 0.0005 | 0.0060 | 0.0110 | 0.0040 | 0.0040 | 0.0110 | 20.0000 | 10.0000 | 23.9000 | 8.0200 |
| 12 | 0.0002 | 0.0030 | 0.0110 | 0.0020 | 0.0040 | 0.0070 | 80.0000 | 110.0000 | 21.7000 | 7.6700 |
| 13 | 0.0006 | 0.0050 | 0.0170 | 0.0040 | 0.0240 | 0.0260 | 20.0000 | 140.0000 | 35.5000 | 11.0200 |
| 14 | 0.0007 | 0.0220 | 0.0190 | 0.0060 | 0.0330 | 0.0440 | 420.0000 | 320.0000 | 43.6000 | 11.9600 |
| 15 | 0.0004 | 0.0040 | 0.0170 | 0.0060 | 0.0030 | 0.0130 | 220.0000 | 1560.0000 | 62.9000 | 19.3800 |
| 16 | 0.0004 | 0.0020 | 0.0120 | 0.0020 | 0.0030 | 0.0010 | 70.0000 | 90.0000 | 29.7000 | 12.9300 |
| 17 | 0.0003 | 0.0030 | 0.0100 | 0.0030 | 0.0030 | 0.0050 | 40.0000 | 20.0000 | 33.2000 | 13.5900 |
| 18 | 0.0003 | 0.0260 | 0.0190 | 0.0160 | 0.0080 | 0.0090 | 30.0000 | 10.0000 | 51.9000 | 13.9300 |
| 19 | 0.0004 | 0.0020 | 0.0100 | 0.0010 | 0.0030 | 0.0040 | 130.0000 | 60.0000 | 10.4000 | 8.5700 |
| 20 | 0.0004 | 0.0040 | 0.0170 | 0.0010 | 0.0030 | 0.0050 | 60.0000 | 60.0000 | 6.0200 | 6.7400 |
| 21 | 0.0002 | 0.0020 | 0.0070 | 0.0010 | 0.0030 | 0.0090 | 200.0000 | 60.0000 | 9.2300 | 3.1100 |
| 22 | 0.0002 | 0.0020 | 0.0090 | 0.0020 | 0.0080 | 0.0100 | 540.0000 | 960.0000 | 9.1500 | 3.4400 |
| 23 | 0.0002 | 0.0030 | 0.0130 | 0.0020 | 0.0110 | 0.0290 | 1660.0000 | 2940.0000 | 8.2000 | 5.0300 |
| 24 | 0.0002 | 0.0030 | 0.0080 | 0.0020 | 0.0110 | 0.0200 | 2960.0000 | 2600.0000 | 21.9000 | 4.8800 |
| 25 | 0.0002 | 0.0100 | 0.0190 | 0.0100 | 0.0140 | 0.0700 | 600.0000 | 1800.0000 | 190.0000 | 32.4000 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 26 | 0.0004 | 0.0140 | 0.0220 | 0.0100 | 0.0190 | 0.0510 | 700.0000 | 2100.0000 | 399.0000 | 45.8100 |
| 27 | 0.0004 | 0.0100 | 0.0180 | 0.0080 | 0.0140 | 0.0380 | 200.0000 | 1400.0000 | 268.0000 | 42.0100 |
| 28 | 0.0003 | 0.0060 | 0.0110 | 0.0050 | 0.0080 | 0.0300 | 1000.0000 | 3200.0000 | 0.0000 | 30.0400 |
| 29 | 0.0002 | 0.0070 | 0.0180 | 0.0030 | 0.0120 | 0.0300 | 780.0000 | 860.0000 | 92.2000 | 13.6600 |
| 30 | 0.0002 | 0.0060 | 0.0170 | 0.0040 | 0.0110 | 0.0300 | 380.0000 | 1100.0000 | 149.0000 | 17.2600 |
| 31 | 0.0002 | 0.0020 | 0.0060 | 0.0040 | 0.0030 | 0.0030 | 120.0000 | 100.0000 | 5.7000 | 2.7000 |
| 32 | 0.0003 | 0.0020 | 0.0060 | 0.0050 | 0.0040 | 0.0040 | 20.0000 | 30.0000 | 13.9000 | 2.7600 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #7

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|---------|--------|--------|---------|---------|--------|--------|
| 1 | 1.0000 | 0.6139 | 0.7459 | 0.7773 | 0.6162 | 0.5011 | -0.1697 | -0.0715 | 0.6771 | 0.6061 |
| 2 | 0.6139 | 1.0000 | 0.7870 | 0.7336 | 0.7871 | 0.7879 | 0.0281 | 0.0870 | 0.5866 | 0.5514 |
| 3 | 0.7459 | 0.7870 | 1.0000 | 0.8681 | 0.7055 | 0.7770 | -0.0348 | 0.1562 | 0.8706 | 0.8123 |
| 5 | 0.7773 | 0.7336 | 0.8681 | 1.0000 | 0.5490 | 0.6508 | -0.0309 | 0.1466 | 0.8881 | 0.8164 |
| 6 | 0.6162 | 0.7871 | 0.7055 | 0.5490 | 1.0000 | 0.8401 | 0.1647 | 0.1602 | 0.5179 | 0.4444 |
| 7 | 0.5011 | 0.7879 | 0.7770 | 0.6508 | 0.8401 | 1.0000 | 0.2591 | 0.3929 | 0.6759 | 0.6764 |
| 8 | -0.1697 | 0.0281 | -0.0348 | -0.0309 | 0.1647 | 0.2591 | 1.0000 | 0.7599 | 0.0443 | 0.0557 |
| 9 | -0.0715 | 0.0870 | 0.1562 | 0.1466 | 0.1602 | 0.3929 | 0.7599 | 1.0000 | 0.2372 | 0.4145 |
| 51 | 0.6771 | 0.5866 | 0.8706 | 0.8881 | 0.5179 | 0.6759 | 0.0443 | 0.2372 | 1.0000 | 0.8228 |
| 52 | 0.6061 | 0.5514 | 0.8123 | 0.8164 | 0.4444 | 0.6764 | 0.0557 | 0.4145 | 0.8228 | 1.0000 |

T STATISTIC FOR 30 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|--------|---------|---------|--------|--------|--------|--------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 4.2599 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 6.1335 | 6.9865 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 6.7665 | 5.9123 | 9.5774 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.2850 | 6.9899 | 5.4522 | 3.5976 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 3.1716 | 7.0071 | 6.7611 | 4.6949 | 8.4845 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -0.9431 | 0.1542 | -0.1906 | -0.1694 | 0.9146 | 1.4695 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.3927 | 0.4786 | 0.8662 | 0.8119 | 0.8887 | 2.3404 | 6.4025 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 5.0396 | 3.9671 | 9.6910 | 10.5799 | 3.3161 | 5.0233 | 0.2428 | 1.3376 | 0.0000 | 0.0000 |
| 52 | 4.1742 | 3.6204 | 7.6278 | 7.7426 | 2.7174 | 5.0301 | 0.3054 | 2.4947 | 10.2955 | 0.0000 |

T 0.05[30] = 2.042

T 0.01[30] = 2.750

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate
Fall 1982 and Spring 1983
Station #8

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|---------|
| 1 | 0.0005 | 0.0040 | 0.0120 | 0.0060 | 0.0050 | 0.0100 | 160.0000 | 220.0000 | 77.1000 | 7.7000 |
| 2 | 0.0002 | 0.0020 | 0.0100 | 0.0040 | 0.0030 | 0.0150 | 20.0000 | 20.0000 | 13.3000 | 1.9400 |
| 3 | 0.0007 | 0.0080 | 0.0220 | 0.0110 | 0.0420 | 0.0740 | 460.0000 | 540.0000 | 235.0000 | 5.8000 |
| 4 | 0.0007 | 0.0100 | 0.0220 | 0.0160 | 0.0300 | 0.0520 | 320.0000 | 500.0000 | 677.0000 | 15.7400 |
| 5 | 0.0010 | 0.0120 | 0.0220 | 0.0190 | 0.0130 | 0.0450 | 800.0000 | 1840.0000 | 765.0000 | 30.0000 |
| 6 | 0.0009 | 0.0090 | 0.0190 | 0.0150 | 0.0060 | 0.0310 | 820.0000 | 8400.0000 | 216.0000 | 17.1900 |
| 7 | 0.0007 | 0.0080 | 0.0170 | 0.0120 | 0.0030 | 0.0260 | 520.0000 | 500.0000 | 145.0000 | 10.4900 |
| 8 | 0.0007 | 0.0050 | 0.0140 | 0.0080 | 0.0450 | 0.0220 | 340.0000 | 320.0000 | 88.2000 | 5.1700 |
| 9 | 0.0007 | 0.0040 | 0.0140 | 0.0070 | 0.0040 | 0.0260 | 100.0000 | 160.0000 | 65.7000 | 5.3800 |
| 10 | 0.0009 | 0.0030 | 0.0140 | 0.0060 | 0.0120 | 0.0020 | 10.0000 | 10.0000 | 31.3000 | 2.1100 |
| 11 | 0.0006 | 0.0020 | 0.0130 | 0.0040 | 0.0150 | 0.0130 | 20.0000 | 20.0000 | 17.8000 | 0.9600 |
| 12 | 0.0002 | 0.0020 | 0.0120 | 0.0020 | 0.0050 | 0.0290 | 250.0000 | 20.0000 | 20.4000 | 1.0400 |
| 13 | 0.0006 | 0.0050 | 0.0220 | 0.0040 | 0.0550 | 0.0500 | 420.0000 | 220.0000 | 40.4000 | 1.6800 |
| 14 | 0.0007 | 0.0070 | 0.0120 | 0.0030 | 0.0080 | 0.0130 | 580.0000 | 220.0000 | 24.1000 | 1.5200 |
| 15 | 0.0003 | 0.0030 | 0.0130 | 0.0030 | 0.0030 | 0.0230 | 60.0000 | 260.0000 | 18.3000 | 2.7000 |
| 16 | 0.0005 | 0.0030 | 0.0190 | 0.0050 | 0.0840 | 0.0120 | 20.0000 | 100.0000 | 41.9000 | 2.1000 |
| 17 | 0.0005 | 0.0080 | 0.0180 | 0.0080 | 0.0080 | 0.0160 | 20.0000 | 920.0000 | 56.3000 | 1.7000 |
| 18 | 0.0020 | 0.0040 | 0.0240 | 0.0030 | 0.0050 | 0.0080 | 40.0000 | 50.0000 | 11.3000 | 0.7700 |
| 19 | 0.0010 | 0.0030 | 0.0230 | 0.0030 | 0.0150 | 0.0190 | 60.0000 | 40.0000 | 4.7000 | 0.4400 |
| 20 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0040 | 0.0050 | 120.0000 | 100.0000 | 8.9600 | 0.4000 |
| 21 | 0.0002 | 0.0040 | 0.0100 | 0.0020 | 0.0220 | 0.0170 | 6800.0000 | 15200.0000 | 11.7000 | 0.6400 |
| 22 | 0.0002 | 0.0030 | 0.0130 | 0.0030 | 0.0220 | 0.0390 | 1800.0000 | 7500.0000 | 23.4000 | 0.9000 |
| 23 | 0.0002 | 0.0030 | 0.0080 | 0.0030 | 0.0170 | 0.0120 | 3300.0000 | 3700.0000 | 5.0900 | 0.6800 |
| 24 | 0.0002 | 0.0060 | 0.0120 | 0.0040 | 0.0130 | 0.0200 | 200.0000 | 600.0000 | 108.0000 | 1.9100 |
| 25 | 0.0003 | 0.0080 | 0.0130 | 0.0060 | 0.0190 | 0.0350 | 200.0000 | 400.0000 | 110.0000 | 4.3900 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 26 | 0.0003 | 0.0070 | 0.0140 | 0.0060 | 0.0070 | 0.0370 | 800.0000 | 1000.0000 | 125.0000 | 11.4300 |
| 27 | 0.0002 | 0.0060 | 0.0160 | 0.0050 | 0.0100 | 0.0260 | 500.0000 | 1800.0000 | 108.0000 | 7.9500 |
| 28 | 0.0003 | 0.0050 | 0.0160 | 0.0010 | 0.0100 | 0.0170 | 320.0000 | 420.0000 | 94.5000 | 4.9700 |
| 29 | 0.0002 | 0.0020 | 0.0050 | 0.0010 | 0.0030 | 0.0010 | 140.0000 | 50.0000 | 3.6800 | 0.3300 |
| 30 | 0.0002 | 0.0040 | 0.0150 | 0.0010 | 0.0080 | 0.0090 | 1800.0000 | 2620.0000 | 69.0000 | 4.0300 |
| 31 | 0.0004 | 0.0030 | 0.0110 | 0.0010 | 0.0050 | 0.0020 | 80.0000 | 40.0000 | 1.3600 | 0.4100 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station #8

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 1.0000 | 0.2636 | 0.6907 | 0.3831 | 0.0422 | 0.0830 | -0.2610 | -0.1692 | 0.2431 | 0.2515 |
| 2 | 0.2636 | 1.0000 | 0.5237 | 0.8271 | 0.0500 | 0.6082 | -0.0402 | 0.0673 | 0.7897 | 0.7926 |
| 3 | 0.6907 | 0.5237 | 1.0000 | 0.5400 | 0.3703 | 0.5397 | -0.2540 | -0.1330 | 0.4876 | 0.4276 |
| 5 | 0.3831 | 0.8271 | 0.5400 | 1.0000 | 0.1298 | 0.6008 | -0.1327 | 0.0346 | 0.8465 | 0.8657 |
| 6 | 0.0422 | 0.0500 | 0.3703 | 0.1298 | 1.0000 | 0.3551 | 0.0490 | 0.0101 | 0.1013 | -0.0500 |
| 7 | 0.0830 | 0.6082 | 0.5397 | 0.6008 | 0.3551 | 1.0000 | -0.0084 | 0.0705 | 0.5835 | 0.4872 |
| 8 | -0.2610 | -0.0402 | -0.2540 | -0.1327 | 0.0490 | -0.0084 | 1.0000 | 0.8727 | -0.0595 | -0.0584 |
| 9 | -0.1692 | 0.0673 | -0.1330 | 0.0346 | 0.0101 | 0.0705 | 0.8727 | 1.0000 | -0.0027 | 0.0790 |
| 51 | 0.2431 | 0.7897 | 0.4876 | 0.8465 | 0.1013 | 0.5835 | -0.0595 | -0.0027 | 1.0000 | 0.8805 |
| 52 | 0.2515 | 0.7926 | 0.4276 | 0.8657 | -0.0500 | 0.4872 | -0.0584 | 0.0790 | 0.8805 | 1.0000 |

T STATISTIC FOR 29 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.4716 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.1429 | 3.3106 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 2.2337 | 7.9257 | 3.4553 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 0.2274 | 0.2697 | 2.1466 | 0.7048 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 0.4485 | 4.1261 | 3.4525 | 4.0477 | 2.0459 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | -1.4559 | -0.2166 | -1.4145 | -0.7211 | 0.2639 | -0.0451 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.9245 | 0.3635 | -0.7226 | 0.1867 | 0.0542 | 0.3804 | 9.6270 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 1.3493 | 6.9319 | 3.0074 | 8.5616 | 0.5485 | 3.8695 | -0.3209 | -0.0144 | 0.0000 | 0.0000 |
| 52 | 1.3993 | 6.9999 | 2.5475 | 9.3141 | -0.2696 | 3.0040 | -0.3151 | 0.4267 | 10.0048 | 0.0000 |

T 0.05[29] = 2.045

T 0.01[29] = 2.756

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station #9

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 1 | 0.0006 | 0.0080 | 0.0180 | 0.0120 | 0.0080 | 0.0200 | 200.0000 | 300.0000 | 201.0000 | 7.9500 |
| 2 | 0.0002 | 0.0070 | 0.0100 | 0.0020 | 0.0030 | 0.0040 | 20.0000 | 20.0000 | 16.8000 | 1.8500 |
| 3 | 0.0009 | 0.0510 | 0.0220 | 0.0120 | 0.0260 | 0.0480 | 1100.0000 | 340.0000 | 118.0000 | 6.9600 |
| 4 | 0.0020 | 0.0320 | 0.0450 | 0.0410 | 0.0340 | 0.0930 | 760.0000 | 1280.0000 | 832.0000 | 16.0400 |
| 5 | 0.0010 | 0.0200 | 0.0340 | 0.0270 | 0.0210 | 0.0640 | 400.0000 | 900.0000 | 618.0000 | 7.9700 |
| 6 | 0.0010 | 0.0140 | 0.0290 | 0.0230 | 0.0140 | 0.0420 | 340.0000 | 940.0000 | 315.0000 | 17.0400 |
| 7 | 0.0008 | 0.0110 | 0.0240 | 0.0160 | 0.0090 | 0.0320 | 300.0000 | 160.0000 | 359.0000 | 13.6900 |
| 8 | 0.0006 | 0.0040 | 0.0140 | 0.0060 | 0.0070 | 0.0100 | 220.0000 | 60.0000 | 158.0000 | 7.3100 |
| 9 | 0.0006 | 0.0040 | 0.0160 | 0.0060 | 0.0070 | 0.0120 | 300.0000 | 40.0000 | 91.5000 | 4.3600 |
| 10 | 0.0006 | 0.0040 | 0.0120 | 0.0040 | 0.0060 | 0.0030 | 20.0000 | 30.0000 | 28.6000 | 3.2200 |
| 11 | 0.0005 | 0.0040 | 0.0120 | 0.0050 | 0.0060 | 0.0100 | 60.0000 | 10.0000 | 34.9000 | 3.6400 |
| 12 | 0.0002 | 0.0020 | 0.0100 | 0.0030 | 0.0030 | 0.0060 | 140.0000 | 70.0000 | 45.0000 | 3.4200 |
| 13 | 0.0007 | 0.0200 | 0.0240 | 0.0090 | 0.0560 | 0.0680 | 80.0000 | 240.0000 | 77.0000 | 5.4100 |
| 14 | 0.0007 | 0.0110 | 0.0130 | 0.0050 | 0.0080 | 0.0170 | 300.0000 | 260.0000 | 43.8000 | 4.5400 |
| 15 | 0.0004 | 0.0020 | 0.0140 | 0.0020 | 0.0030 | 0.0130 | 20.0000 | 10.0000 | 37.7000 | 6.1000 |
| 16 | 0.0004 | 0.0030 | 0.0120 | 0.0030 | 0.0030 | 0.0040 | 30.0000 | 30.0000 | 39.9000 | 7.1500 |
| 17 | 0.0004 | 0.0120 | 0.0170 | 0.0080 | 0.0080 | 0.0170 | 70.0000 | 30.0000 | 54.4000 | 7.1000 |
| 18 | 0.0004 | 0.0060 | 0.0150 | 0.0020 | 0.0030 | 0.0030 | 100.0000 | 10.0000 | 8.9800 | 4.1500 |
| 19 | 0.0004 | 0.0020 | 0.2000 | 0.0010 | 0.0030 | 0.0030 | 40.0000 | 20.0000 | 6.0600 | 2.7200 |
| 20 | 0.0002 | 0.0020 | 0.0050 | 0.0020 | 0.0030 | 0.0010 | 120.0000 | 120.0000 | 34.0000 | 1.9200 |
| 21 | 0.0002 | 0.0060 | 0.0060 | 0.0020 | 0.0070 | 0.0040 | 940.0000 | 3800.0000 | 15.5000 | 2.6300 |
| 22 | 0.0003 | 0.0140 | 0.0140 | 0.0050 | 0.0260 | 0.0440 | 1700.0000 | 5000.0000 | 79.8000 | 2.5000 |
| 23 | 0.0002 | 0.0060 | 0.0090 | 0.0030 | 0.0130 | 0.0180 | 1700.0000 | 2700.0000 | 27.7000 | 2.1800 |
| 24 | 0.0003 | 0.0100 | 0.0140 | 0.0060 | 0.0100 | 0.0350 | 100.0000 | 700.0000 | 168.0000 | 12.1900 |
| 25 | 0.0002 | 0.0120 | 0.0140 | 0.0060 | 0.0120 | 0.0290 | 100.0000 | 600.0000 | 180.0000 | 15.9300 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|---------|
| 26 | 0.0003 | 0.0080 | 0.0140 | 0.0060 | 0.0100 | 0.0340 | 300.0000 | 800.0000 | 287.0000 | 29.4700 |
| 27 | 0.0002 | 0.0050 | 0.0120 | 0.0040 | 0.0050 | 0.0160 | 100.0000 | 2400.0000 | 173.0000 | 17.5400 |
| 28 | 0.0002 | 0.0100 | 0.0160 | 0.0030 | 0.0120 | 0.0410 | 2100.0000 | 1780.0000 | 59.8000 | 4.6100 |
| 29 | 0.0002 | 0.0010 | 0.0050 | 0.0020 | 0.0030 | 0.0030 | 110.0000 | 120.0000 | 8.3600 | 1.6800 |
| 30 | 0.0002 | 0.0050 | 0.1300 | 0.0010 | 0.0060 | 0.0100 | 700.0000 | 1020.0000 | 105.0000 | 7.1200 |
| 31 | 0.0003 | 0.0020 | 0.0070 | 0.0020 | 0.0030 | 0.0030 | 60.0000 | 40.0000 | 3.0800 | 1.6700 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #9

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|
| 1 | 1.0000 | 0.6425 | 0.0799 | 0.9161 | 0.5350 | 0.7148 | 0.0071 | -0.1259 | 0.7966 | 0.2859 |
| 2 | 0.6425 | 1.0000 | -0.0181 | 0.6233 | 0.6947 | 0.7594 | 0.3367 | 0.1047 | 0.5007 | 0.2381 |
| 3 | 0.0799 | -0.0181 | 1.0000 | 0.0146 | -0.0167 | -0.0081 | -0.0289 | -0.0829 | 0.0602 | -0.0293 |
| 5 | 0.9161 | 0.6233 | 0.0146 | 1.0000 | 0.5291 | 0.8053 | 0.0774 | 0.0231 | 0.9338 | 0.4351 |
| 6 | 0.5350 | 0.6947 | -0.0167 | 0.5291 | 1.0000 | 0.8496 | 0.3014 | 0.2425 | 0.4238 | 0.1510 |
| 7 | 0.7148 | 0.7594 | -0.0081 | 0.8053 | 0.8496 | 1.0000 | 0.3519 | 0.2417 | 0.7710 | 0.4397 |
| 8 | 0.0071 | 0.3367 | -0.0289 | 0.0774 | 0.3014 | 0.3519 | 1.0000 | 0.7219 | 0.0631 | -0.1200 |
| 9 | -0.1259 | 0.1047 | -0.0829 | 0.0231 | 0.2425 | 0.2417 | 0.7219 | 1.0000 | 0.0745 | 0.0262 |
| 51 | 0.7966 | 0.5007 | 0.0602 | 0.9338 | 0.4238 | 0.7710 | 0.0631 | 0.0745 | 1.0000 | 0.5952 |
| 52 | 0.2859 | 0.2381 | -0.0293 | 0.4351 | 0.1510 | 0.4397 | -0.1200 | 0.0262 | 0.5952 | 1.0000 |

T STATISTIC FOR 29 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|---------|---------|---------|---------|--------|--------|---------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 4.5153 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 0.4314 | -0.0976 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 12.3010 | 4.2929 | 0.0787 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 3.4099 | 5.2011 | -0.0899 | 3.3574 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 5.5051 | 6.2854 | -0.0438 | 7.3138 | 8.6747 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.0384 | 1.9255 | -0.1554 | 0.4183 | 1.7023 | 2.0244 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | -0.6835 | 0.5668 | -0.4481 | 0.1244 | 1.3462 | 1.3411 | 5.6182 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 7.0962 | 3.1146 | 0.3247 | 14.0573 | 2.5196 | 6.5193 | 0.3407 | 0.4024 | 0.0000 | 0.0000 |
| 52 | 1.6065 | 1.3202 | -0.1577 | 2.6020 | 0.8228 | 2.6361 | -0.6510 | 0.1414 | 3.9884 | 0.0000 |

T 0.05[29] = 2.045

T 0.01[29] = 2.756

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station #10

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|-----------|---------|
| 1 | 0.0006 | 0.0060 | 0.0190 | 0.0090 | 0.0080 | 0.0150 | 320.0000 | 500.0000 | 150.0000 | 8.9500 |
| 2 | 0.0002 | 0.0020 | 0.0120 | 0.0020 | 0.0030 | 0.0060 | 20.0000 | 20.0000 | 25.7000 | 3.2700 |
| 3 | 0.0007 | 0.0080 | 0.0190 | 0.0110 | 0.0070 | 0.0220 | 440.0000 | 100.0000 | 83.5000 | 5.4100 |
| 4 | 0.0020 | 0.0240 | 0.0400 | 0.0360 | 0.0260 | 0.0760 | 900.0000 | 900.0000 | 1114.0000 | 14.6400 |
| 5 | 0.0010 | 0.0180 | 0.0330 | 0.0280 | 0.0200 | 0.0550 | 540.0000 | 1260.0000 | 642.0000 | 17.1200 |
| 6 | 0.0010 | 0.0120 | 0.0290 | 0.0200 | 0.0170 | 0.0380 | 320.0000 | 1140.0000 | 618.0000 | 15.1900 |
| 7 | 0.0007 | 0.0090 | 0.0210 | 0.0150 | 0.0080 | 0.0270 | 420.0000 | 180.0000 | 375.0000 | 12.6100 |
| 8 | 0.0004 | 0.0040 | 0.0150 | 0.0070 | 0.0030 | 0.0120 | 140.0000 | 40.0000 | 164.0000 | 8.2500 |
| 9 | 0.0006 | 0.0040 | 0.0140 | 0.0040 | 0.0070 | 0.0130 | 100.0000 | 20.0000 | 79.7000 | 7.1000 |
| 10 | 0.0004 | 0.0010 | 0.0100 | 0.0020 | 0.0030 | 0.0010 | 30.0000 | 10.0000 | 27.9000 | 4.4400 |
| 11 | 0.0003 | 0.0240 | 0.0110 | 0.0050 | 0.0040 | 0.0090 | 30.0000 | 10.0000 | 46.7000 | 3.3300 |
| 12 | 0.0002 | 0.0030 | 0.0100 | 0.0020 | 0.0030 | 0.0040 | 290.0000 | 70.0000 | 37.8000 | 3.6100 |
| 13 | 0.0005 | 0.0020 | 0.0120 | 0.0040 | 0.0040 | 0.0090 | 320.0000 | 20.0000 | 36.1000 | 4.2800 |
| 14 | 0.0003 | 0.0020 | 0.0140 | 0.0030 | 0.0050 | 0.0060 | 340.0000 | 20.0000 | 35.6000 | 4.1600 |
| 15 | 0.0020 | 0.0060 | 0.0200 | 0.0120 | 0.0390 | 0.0110 | 100.0000 | 1500.0000 | 110.0000 | 7.5400 |
| 16 | 0.0003 | 0.0020 | 0.0130 | 0.0030 | 0.0030 | 0.0010 | 20.0000 | 10.0000 | 33.6000 | 5.7800 |
| 17 | 0.0008 | 0.0020 | 0.0100 | 0.0030 | 0.0030 | 0.0060 | 70.0000 | 10.0000 | 39.4000 | 6.7900 |
| 18 | 0.0003 | 0.0040 | 0.0300 | 0.0050 | 0.0080 | 0.0460 | 10.0000 | 20.0000 | 59.9000 | 6.8300 |
| 19 | 0.0006 | 0.0010 | 0.0140 | 0.0030 | 0.0030 | 0.0020 | 20.0000 | 10.0000 | 15.0000 | 3.9500 |
| 20 | 0.0004 | 0.0020 | 0.0220 | 0.0010 | 0.0030 | 0.0030 | 40.0000 | 20.0000 | 9.7000 | 3.0000 |
| 21 | 0.0002 | 0.0020 | 0.0060 | 0.0010 | 0.0030 | 0.0030 | 20.0000 | 40.0000 | 19.1000 | 2.4900 |
| 22 | 0.0002 | 0.0020 | 0.0080 | 0.0010 | 0.0040 | 0.0080 | 160.0000 | 460.0000 | 13.9000 | 2.6700 |
| 23 | 0.0002 | 0.0020 | 0.0070 | 0.0010 | 0.0030 | 0.0460 | 1300.0000 | 3200.0000 | 7.8700 | 2.6100 |
| 24 | 0.0002 | 0.0120 | 0.0130 | 0.0050 | 0.0070 | 0.0300 | 600.0000 | 600.0000 | 243.0000 | 12.9400 |
| 25 | 0.0002 | 0.0050 | 0.0120 | 0.0040 | 0.0170 | 0.0310 | 100.0000 | 900.0000 | 186.0000 | 12.1100 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|----------|-----------|----------|---------|
| 26 | 0.0004 | 0.0100 | 0.0130 | 0.0080 | 0.0120 | 0.0320 | 300.0000 | 800.0000 | 285.0000 | 21.2500 |
| 27 | 0.0002 | 0.0060 | 0.0130 | 0.0040 | 0.0080 | 0.0150 | 500.0000 | 1400.0000 | 160.0000 | 14.1200 |
| 28 | 0.0004 | 0.0040 | 0.0170 | 0.0020 | 0.0120 | 0.0160 | 660.0000 | 820.0000 | 54.6000 | 4.3100 |
| 29 | 0.0002 | 0.0040 | 0.0130 | 0.0010 | 0.0060 | 0.0130 | 860.0000 | 1320.0000 | 122.0000 | 8.2600 |
| 30 | 0.0002 | 0.0010 | 0.0080 | 0.0010 | 0.0030 | 0.0170 | 60.0000 | 40.0000 | 12.1000 | 2.1000 |
| 31 | 0.0002 | 0.0040 | 0.0110 | 0.0010 | 0.0060 | 0.0130 | 780.0000 | 940.0000 | 48.4000 | 7.4700 |
| 32 | 0.0003 | 0.0030 | 0.0130 | 0.0020 | 0.0030 | 0.0190 | 540.0000 | 700.0000 | 75.9000 | 6.7900 |
| 33 | 0.0004 | 0.0020 | 0.0080 | 0.0010 | 0.0040 | 0.0140 | 50.0000 | 30.0000 | 20.3000 | 2.3000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #10

CORRELATION MATRIX. VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.4829 | 0.6786 | 0.7760 | 0.8307 | 0.4382 | 0.1064 | 0.1907 | 0.6523 | 0.3456 |
| 2 | 0.4829 | 1.0000 | 0.6125 | 0.7638 | 0.4869 | 0.6277 | 0.2600 | 0.1738 | 0.7541 | 0.5650 |
| 3 | 0.6786 | 0.6125 | 1.0000 | 0.8595 | 0.6236 | 0.7177 | 0.1830 | 0.1230 | 0.8042 | 0.5865 |
| 5 | 0.7760 | 0.7638 | 0.8595 | 1.0000 | 0.6816 | 0.7512 | 0.2712 | 0.2134 | 0.9423 | 0.6469 |
| 6 | 0.8307 | 0.4869 | 0.6236 | 0.6816 | 1.0000 | 0.5151 | 0.1565 | 0.4205 | 0.6067 | 0.5268 |
| 7 | 0.4382 | 0.6277 | 0.7177 | 0.7512 | 0.5151 | 1.0000 | 0.5402 | 0.5034 | 0.7961 | 0.6113 |
| 8 | 0.1064 | 0.2600 | 0.1830 | 0.2712 | 0.1565 | 0.5402 | 1.0000 | 0.7559 | 0.3674 | 0.2776 |
| 9 | 0.1907 | 0.1738 | 0.1230 | 0.2134 | 0.4205 | 0.5034 | 0.7559 | 1.0000 | 0.2666 | 0.3305 |
| 51 | 0.6523 | 0.7541 | 0.8042 | 0.9423 | 0.6067 | 0.7961 | 0.3674 | 0.2666 | 1.0000 | 0.7285 |
| 52 | 0.3456 | 0.5650 | 0.5865 | 0.6469 | 0.5268 | 0.6113 | 0.2776 | 0.3305 | 0.7285 | 1.0000 |

T STATISTIC FOR 31 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 3.0704 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.1437 | 4.3139 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 6.8507 | 6.5886 | 9.3641 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 8.3070 | 3.1035 | 4.4413 | 5.1860 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 2.7144 | 4.4899 | 5.7389 | 6.3358 | 3.3459 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.5956 | 1.4995 | 1.0362 | 1.5689 | 0.8823 | 3.5744 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 1.0815 | 0.9825 | 0.6903 | 1.2164 | 2.5807 | 3.2442 | 6.4293 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 4.7916 | 6.3934 | 7.5342 | 15.6721 | 4.2493 | 7.3255 | 2.1991 | 1.5400 | 0.0000 | 0.0000 |
| 52 | 2.0504 | 3.8130 | 4.0322 | 4.7229 | 3.4510 | 4.3008 | 1.6086 | 1.9499 | 5.9210 | 0.0000 |

T 0.05[31] = 2.039

T 0.01[31] = 2.744

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS

Metals, Bacteria and Residue Particulate

Fall 1982 and Spring 1983

Station #11

INPUT DATA MATRIX - COLUMNS = VARIABLES, ROWS = OBSERVATIONS

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|-----------|------------|----------|--------|
| 1 | 0.0006 | 0.0070 | 0.0150 | 0.0080 | 0.0080 | 0.0240 | 600.0000 | 380.0000 | 16.9000 | 0.5800 |
| 2 | 0.0002 | 0.0060 | 0.0160 | 0.0060 | 0.0080 | 0.0140 | 80.0000 | 20.0000 | 7.2000 | 0.2000 |
| 3 | 0.0010 | 0.0170 | 0.0370 | 0.0260 | 0.1200 | 0.1500 | 1280.0000 | 740.0000 | 273.0000 | 2.0800 |
| 4 | 0.0010 | 0.0270 | 0.0490 | 0.0310 | 0.1600 | 0.2100 | 660.0000 | 1320.0000 | 393.0000 | 4.7100 |
| 5 | 0.0008 | 0.0110 | 0.0270 | 0.0170 | 0.0300 | 0.0330 | 1580.0000 | 1080.0000 | 268.0000 | 2.4400 |
| 6 | 0.0006 | 0.0080 | 0.0170 | 0.0080 | 0.0120 | 0.0320 | 860.0000 | 520.0000 | 80.8000 | 1.1100 |
| 7 | 0.0006 | 0.0060 | 0.0200 | 0.0080 | 0.0130 | 0.0340 | 420.0000 | 120.0000 | 42.5000 | 0.6000 |
| 8 | 0.0007 | 0.0050 | 0.0160 | 0.0060 | 0.0120 | 0.0270 | 760.0000 | 340.0000 | 22.9000 | 0.5300 |
| 9 | 0.0002 | 0.0040 | 0.0160 | 0.0030 | 0.0030 | 0.0290 | 2400.0000 | 140.0000 | 21.5000 | 0.2400 |
| 10 | 0.0005 | 0.0050 | 0.0200 | 0.0060 | 0.0530 | 0.0660 | 440.0000 | 180.0000 | 43.7000 | 0.5900 |
| 11 | 0.0006 | 0.0090 | 0.0210 | 0.0060 | 0.0160 | 0.0370 | 160.0000 | 140.0000 | 16.2000 | 0.4100 |
| 12 | 0.0002 | 0.0050 | 0.0210 | 0.0040 | 0.0110 | 0.0330 | 920.0000 | 260.0000 | 11.3000 | 0.2900 |
| 13 | 0.0006 | 0.0050 | 0.0160 | 0.0050 | 0.0100 | 0.0400 | 480.0000 | 100.0000 | 8.4000 | 0.3200 |
| 14 | 0.0030 | 0.0130 | 0.0700 | 0.0200 | 0.3400 | 0.2900 | 740.0000 | 840.0000 | 174.0000 | 1.0500 |
| 15 | 0.0007 | 0.0090 | 0.0270 | 0.0100 | 0.0900 | 0.1100 | 1460.0000 | 500.0000 | 73.9000 | 1.0800 |
| 16 | 0.0006 | 0.0130 | 0.0260 | 0.0090 | 0.0270 | 0.0550 | 1900.0000 | 580.0000 | 88.4000 | 1.4300 |
| 17 | 0.0006 | 0.0040 | 0.0210 | 0.0040 | 0.0080 | 0.0360 | 140.0000 | 120.0000 | 17.9000 | 0.4500 |
| 18 | 0.0020 | 0.0040 | 0.0340 | 0.0050 | 0.0140 | 0.0260 | 200.0000 | 240.0000 | 6.9700 | 0.4500 |
| 19 | 0.0004 | 0.0070 | 0.0250 | 0.0070 | 0.0120 | 0.0240 | 210.0000 | 50.0000 | 13.3000 | 0.4400 |
| 20 | 0.0007 | 0.0050 | 0.0250 | 0.0040 | 0.0120 | 0.0290 | 620.0000 | 120.0000 | 9.3000 | 0.3000 |
| 21 | 0.0006 | 0.0020 | 0.0240 | 0.0050 | 0.0080 | 0.0260 | 320.0000 | 80.0000 | 3.7200 | 0.1700 |
| 22 | 0.0003 | 0.0040 | 0.0120 | 0.0040 | 0.0060 | 0.0520 | 420.0000 | 440.0000 | 4.6900 | 0.1100 |
| 23 | 0.0006 | 0.0080 | 0.0260 | 0.0160 | 0.0700 | 0.1100 | 2700.0000 | 3600.0000 | 27.0000 | 0.8800 |
| 24 | 0.0017 | 0.0230 | 0.0700 | 0.0180 | 0.3100 | 0.4300 | 4100.0000 | 14000.0000 | 447.0000 | 1.7600 |
| 25 | 0.0005 | 0.0050 | 0.0210 | 0.0050 | 0.0600 | 0.1500 | 3300.0000 | 17000.0000 | 67.3000 | 0.6200 |

| | | | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|-----------|-----------|----------|--------|
| 26 | 0.0022 | 0.0070 | 0.0170 | 0.0040 | 0.0150 | 0.0440 | 500.0000 | 1000.0000 | 55.6000 | 0.9600 |
| 27 | 0.0004 | 0.0110 | 0.0170 | 0.0060 | 0.0490 | 0.0750 | 500.0000 | 900.0000 | 116.0000 | 4.4400 |
| 28 | 0.0003 | 0.0080 | 0.0160 | 0.0050 | 0.0350 | 0.0500 | 400.0000 | 1200.0000 | 75.3000 | 3.1400 |
| 29 | 0.0005 | 0.0060 | 0.0180 | 0.0080 | 0.0390 | 0.0790 | 5900.0000 | 7700.0000 | 84.2000 | 1.3900 |
| 30 | 0.0005 | 0.0090 | 0.0180 | 0.0070 | 0.1200 | 0.0910 | 4500.0000 | 6100.0000 | 49.6000 | 1.3900 |
| 31 | 0.0020 | 0.0030 | 0.0110 | 0.0020 | 0.0080 | 0.0140 | 1460.0000 | 180.0000 | 2.6200 | 0.1300 |
| 32 | 0.0005 | 0.0070 | 0.0160 | 0.0030 | 0.0140 | 0.0300 | 420.0000 | 340.0000 | 23.0000 | 0.1000 |

TORONTO AREA WATERSHED MANAGEMENT STRATEGY STUDY - CORRELATIONS
 Metals, Bacteria and Residue Particulate
 Fall 1982 and Spring 1983
 Station #11

CORRELATION MATRIX, VARIABLE 1 IS Y

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.0000 | 0.3073 | 0.7096 | 0.4002 | 0.6601 | 0.5466 | 0.0347 | 0.0795 | 0.3649 | 0.0201 |
| 2 | 0.3073 | 1.0000 | 0.7282 | 0.8635 | 0.7124 | 0.7644 | 0.1920 | 0.2542 | 0.9196 | 0.7077 |
| 3 | 0.7096 | 0.7282 | 1.0000 | 0.7312 | 0.9066 | 0.8877 | 0.1562 | 0.3023 | 0.7529 | 0.3026 |
| 5 | 0.4002 | 0.8635 | 0.7312 | 1.0000 | 0.6844 | 0.6950 | 0.1569 | 0.1412 | 0.8434 | 0.5859 |
| 6 | 0.6601 | 0.7124 | 0.9066 | 0.6844 | 1.0000 | 0.9446 | 0.3328 | 0.4271 | 0.7257 | 0.3507 |
| 7 | 0.5466 | 0.7644 | 0.8877 | 0.6950 | 0.9446 | 1.0000 | 0.4171 | 0.5982 | 0.8267 | 0.3900 |
| 8 | 0.0347 | 0.1920 | 0.1562 | 0.1569 | 0.3328 | 0.4171 | 1.0000 | 0.7417 | 0.2857 | 0.1155 |
| 9 | 0.0795 | 0.2542 | 0.3023 | 0.1412 | 0.4271 | 0.5982 | 0.7417 | 1.0000 | 0.3769 | 0.1009 |
| 51 | 0.3649 | 0.9196 | 0.7529 | 0.8434 | 0.7257 | 0.8267 | 0.2857 | 0.3769 | 1.0000 | 0.6781 |
| 52 | 0.0201 | 0.7077 | 0.3026 | 0.5859 | 0.3507 | 0.3900 | 0.1155 | 0.1009 | 0.6781 | 1.0000 |

T STATISTIC FOR 30 DEGREES OF FREEDOM

| | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 51 | 52 |
|----|--------|---------|---------|--------|---------|--------|--------|--------|--------|--------|
| 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2 | 1.7688 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 3 | 5.5154 | 5.8189 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 5 | 2.3921 | 9.3797 | 5.8711 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 6 | 4.8136 | 5.5605 | 11.7647 | 5.1418 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 7 | 3.5753 | 6.4937 | 10.5617 | 5.2946 | 15.7680 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 8 | 0.1904 | 1.0717 | 0.8661 | 0.8704 | 1.9331 | 2.5134 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 9 | 0.4368 | 1.4398 | 1.7369 | 0.7814 | 2.5872 | 4.0887 | 6.0573 | 0.0000 | 0.0000 | 0.0000 |
| 51 | 2.1466 | 12.8174 | 6.2654 | 8.5969 | 5.7776 | 8.0472 | 1.6327 | 2.2287 | 0.0000 | 0.0000 |
| 52 | 0.1099 | 5.4865 | 1.7387 | 3.9599 | 2.0509 | 2.3196 | 0.6367 | 0.5557 | 5.0530 | 0.0000 |

T 0.05[30] = 2.042

T 0.01[30] = 2.750